Exhibit 16

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
HUNTINGTON DIVISION

CHRISTOPHER FAIN, *et al.*, individually and on behalf of all others similarly situated, *Plaintiffs,* v. WILLIAM CROUCH, *et al.*, *Defendants.*	CIVIL ACTION NO. 3:20-cv-00740 HON. ROBERT C. CHAMBERS

EXPERT DISCLOSURE REPORT OF DAN H. KARASIC, M.D.

1. My name is Dan H. Karasic. I have been retained by counsel for plaintiffs Christopher Fain, Shauntae Anderson, and Leanne James (collectively, "Plaintiffs") as an expert in connection with the above-captioned litigation.

2. The following is a summary of my opinions in this case:

- The exclusions in West Virginia's state employee health plans and Medicaid Program (together, the "Exclusion") bar coverage for medical treatments that are part of widely-accepted medical protocols for the treatment of transgender people with gender dysphoria that are recognized by major medical and mental health professional associations in the United States.

- The accepted protocols for the treatment of transgender people with gender dysphoria provide for mental-health assessments, including of co-occurring conditions; criteria for eligibility for each treatment; and an informed consent process before medical interventions are initiated.

- Decades of medical research and clinical experience have demonstrated that the medical treatments barred from coverage by the Exclusion are safe, effective, and medically-necessary to relieve gender dysphoria for transgender people.

- Denying gender-affirming medical care to transgender people for whom it is medically indicated puts them at risk of significant harm to their health and well-being, including heightened risk of depression and suicidality.

- For transgender people for whom gender-affirming medical care is indicated, no alternative treatments have been demonstrated to be effective.

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

I. BACKGROUND AND QUALIFICATIONS

4. I am a Professor Emeritus of Psychiatry at the UCSF Weill Institute for Neurosciences. I have been on faculty at the University of California – San Francisco since 1991. I have also had a telepsychiatry private practice since 2020.

5. I received my Doctor of Medicine (M.D.) degree from the Yale Medical School in 1987. In 1991, I completed my residency in psychiatry at the University of California – Los Angeles Neuropsychiatric Institute, and from 1990 to 1991 I was a postdoctoral fellow in a training program in mental health services for persons living with AIDS at UCLA.

6. For over 30 years, I have worked with patients with gender dysphoria. I am a Distinguished Fellow of the American Psychiatric Association and currently the chair of the American Psychiatric Association Workgroup on Gender Dysphoria, as well as the sole author of the chapter on transgender care in the American Psychiatric Press's Clinical Manual of Cultural Psychiatry, Second Edition.

7. Over the past 30 years, I have provided care for thousands of transgender patients. For 17 years, I was the psychiatrist for the Dimensions Clinic for transgender youth in San Francisco.

8. I previously sat on the Board of Directors of the World Professional Association for Transgender Health (WPATH) and am a co-author of the *WPATH Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People*, Version 7, which are

the internationally accepted guidelines designed to promote the health and welfare of transgender, transsexual, and gender variant persons. I remain active in the work of WPATH. For the upcoming WPATH Standards of Care, Version 8, I am the lead author on the Mental Health chapter.

9. As a member of the WPATH Global Education Initiative, I helped develop a specialty certification program in transgender health and helped train over 2,000 health providers. At UCSF, I developed protocols and outcome measures for the Transgender Surgery Program at the UCSF Medical Center. I also served on the Medical Advisory Board for the UCSF Center of Excellence for Transgender Care, and co-wrote the mental health section of the original *Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People* and the revision in 2016.

10. I have also worked with the San Francisco Department of Public Health, having developed and implemented their training program for the care of transgender patients and for mental health assessments for gender-affirming surgery. I served on the City and County of San Francisco Human Rights Commission's LGBT Advisory Committee, and I have been an expert consultant for California state agencies and on multiple occasions for the United Nations Development Programme on international issues in transgender care.

11. I have held numerous clinical positions concurrent to my clinical professorship at UCSF. Among these, I served as an attending psychiatrist for San Francisco General Hospital's consultation-liaison service for AIDS care, as an outpatient psychiatrist for HIV-AIDS patients at UCSF, as a psychiatrist for the Transgender Life Care Program and the Dimensions Clinic at Castro Mission Health Center, and the founder and co-lead of the UCSF Alliance Health Project's Transgender Team. In these clinical roles, I specialized in the evaluation and treatment of transgender, gender dysphoric, and HIV-positive patients. I also regularly provide consultation on

challenging cases to psychologists and other psychotherapists working with transgender and gender dysphoric patients. I have been a consultant in transgender care to the California Department of State Hospitals and am currently a consultant for the California Department of Corrections and Rehabilitation on the care of incarcerated transgender people.

12. In addition to this work, I have done research on the treatment of depression. I have authored many articles and book chapters, and edited the book *Sexual and Gender Diagnoses of the Diagnostic and Statistical Manual (DSM): A Reevaluation*.

13. In preparing this report, I have relied on my training and years of research and clinical experience, as set out in my curriculum vitae, and on the materials listed therein. A true and accurate copy of my curriculum vitae is attached hereto as Exhibit A. It documents my education, training, research, and years of experience in this field and includes a list of publications.

14. I have also reviewed the materials listed in the attached bibliography (Exhibit B). The sources cited therein include authoritative, scientific peer-reviewed publications. They include the documents specifically cited as supportive examples in particular sections of this report.

15. I also rely upon my interviews of Ms. Anderson, Ms. James, and Mr. Fain, on December 17-9, 2021, and plaintiffs' mental health and medical records.

16. Additionally, I have reviewed the First Amended Class Action Complaint in this case.

17. The materials I have relied upon in preparing this report are the same types of materials that experts in my field of study regularly rely upon when forming opinions on the subject. I reserve the right to revise and supplement the opinions expressed in this report or the bases for them if any new information becomes available in the future, including as a result of new

scientific research or publications or in response to statements and issues that may arise in my area of expertise.

Prior Testimony

18. In the last four years, I have testified as an expert by deposition in *Kadel v. Folwell*, 1:19-cv-00272 (M.D.N.C.).

Compensation

19. I am being compensated for my work on this matter at a rate of $400.00 per hour for preparation of declarations and expert reports. I will be compensated $3,200.00 per day for any deposition testimony or trial testimony. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I may provide.

II. EXPERT OPINIONS

Gender Identity

20. Sex assigned at birth refers to the sex assigned to a person at the time of their birth, typically based on the appearance of external genital characteristics. While the terms "male sex" and "female sex" are sometimes used in reference to a person's genitals, chromosomes, and hormones, the reality is that sex is complicated and multifactorial. Aside from external genital characteristics, chromosomes, and endogenous hormones, other factors related to sex include gonads, gender identity, and variations in brain structure and function. Because these factors may not always be in alignment as typically male or typically female, "the terms biological sex and biological male or female are imprecise and should be avoided." (Hembree, et al., 2017).

21. Gender identity is "a person's deeply felt, inherent sense of being a girl, woman, or female; a man, or male; a blend of male or female; or an alternative gender" (American Psychological Association, 2015, at 834). Gender identity does not always align with sex assigned

at birth. Gender identity, which has biological bases, is not a product of external influence and not subject to voluntary change. As documented by multiple leading medical authorities, efforts to change a person's gender identity are ineffective, can cause harm, and are unethical. (American Psychological Association, 2021, Byne, et al., 2018, Coleman, et al., 2012).

Gender Dysphoria and its Treatment

22. The term "gender dysphoria" (uncapitalized) is distress related to the incongruence between one's gender identity and attributes related to one's sex assigned at birth.

23. The diagnosis of Gender Dysphoria in the Diagnostic and Statistical Manual Fifth Edition (DSM-5), released in 2013, involves two major diagnostic criteria for adolescents and adults:

A. A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months duration, as manifested by at least two of the following (one of which must be Criterion A1):

1. A marked incongruence between one's experienced/expressed gender and primary or secondary sex characteristics.

2. A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender.

3. A strong desire for the primary and/or secondary sex characteristics of the other gender.

4. A strong desire to be of the other gender (or some alternative gender different from one's assigned gender).

5. A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender).

6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender).

B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

24. The World Professional Association of Transgender Health (WPATH) has issued *Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People* ("WPATH SOC") since 1979. The current version is WPATH SOC 7, with WPATH SOC 8 due out in early 2022. WPATH SOC 7 provides guidelines for multidisciplinary care of transgender individuals and describes criteria for medical interventions to treat gender dysphoria, including hormone treatment and surgery when medically indicated. WPATH SOC 7 also states, "Treatment aimed at trying to change a person's gender identity and expression … is no longer considered ethical," because it is known to be ineffective and can cause harm to patients.

25. The WPATH Standards of Care are endorsed and cited as authoritative by many professional medical associations including the American Medical Association, the American Academy of Pediatrics, the American Psychiatric Association, the American Psychological Association, the Endocrine Society, the Pediatric Endocrine Society, the American College of Obstetrics and Gynecology, the American College of Physicians, and the World Medical Association, among others.

26. A clinical practice guideline from the Endocrine Society (the Endocrine Society Guideline) provides similar protocols for the medically necessary treatment of gender dysphoria. (Hembree, et al., 2017).

27. Being transgender is widely accepted as a variation in human development, and is not considered a mental illness. People who are transgender have no impairment in their ability to be productive, contributing members of society simply because of their transgender status. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth

Edition (DSM 5) states: Gender dysphoria "is more descriptive than the previous DSM-IV term 'gender identity disorder' and focuses on dysphoria as the clinical problem, not identity per se." (APA, 2013). WPATH states in SOC 7, "[b]eing transsexual, transgender, or gender-nonconforming is a matter of diversity, not pathology…. Thus, transsexual, transgender, and gender-nonconforming individuals are not inherently disordered. Rather, the distress of gender dysphoria, when present, is the concern that might be diagnosable and for which various treatment options are available." The American Psychological Association states, "[w]hereas diversity in gender identity and expression is part of the human experience and transgender and gender nonbinary identities and expressions are healthy, incongruence between one's sex and gender is neither pathological nor a mental health disorder." (American Psychological Association, 2021). The World Health Organization states, "[g]ender incongruence has thus broadly been moved out of the 'Mental and behavioural disorders' chapter and into the new 'Conditions related to sexual health' chapter. This reflects evidence that trans-related and gender diverse identities are not conditions of mental ill health, and classifying them as such can cause enormous stigma." (WHO Europe).

28. The overarching goal of treatment is to eliminate the distress of gender dysphoria by aligning an individual patient's body and presentation with their internal sense of self. The denial of medically indicated care to transgender people not only results in the prolonging of their gender dysphoria, but causes additional distress and poses other health risks, such as depression, posttraumatic stress disorder, and suicidality. In other words, lack of access to gender-affirming care directly contributes to poorer mental health outcomes for transgender people. (Owen-Smith, et al., 2018).

29. For patients for whom gender-affirming medical care is indicated, no alternative treatments have been demonstrated to be effective. The American Psychological Association states that gender identity change efforts provide no benefit and instead do harm. (American Psychological Association, 2021).

30. Accordingly, major medical organizations, such as the American Medical Association, American Psychiatric Association, the Endocrine Society, American College of Obstetricians and Gynecologists, and American Academy of Family Physicians oppose the denial of this medically necessary care and support public and private health insurance coverage for treatment of gender dysphoria as recommended by the patient's physician. (American Medical Association, 2021; American Psychiatric Association, 2018; Endocrine Society, 2012; American College of Obstetricians and Gynecologists, 2021; American Academy of Family Physicians, 2020).

Treatment of Gender Dysphoria

31. Gender dysphoria is a condition that is highly amenable to treatment, and the prevailing treatment for it is highly effective. With access to medically-indicated care, transgender people can experience significant and potentially complete relief from their symptoms of gender dysphoria.

32. The WPATH SOC 7 and the Endocrine Society Guideline establish authoritative protocols for the treatment of gender dysphoria.

33. Treatment protocols for gender dysphoria are comparable to those for other mental health and medical conditions. WPATH lists medically necessary treatments, which include, for example, hormones, genital surgery, including vaginoplasty and orchiectomy for people assigned male at birth, and hysterectomy, oophorectomy, metoidioplasty, phalloplasty for people assigned

female at birth; chest/breast surgery, and gender-affirming facial surgery. (WPATH 2016). These or similar procedures are done on cisgender people with other diagnoses.

34. Gender-affirming medical interventions in accordance with the WPATH SOC 7 and Endocrine Society Guidelines are widely recognized in the medical community as safe, effective, and medically necessary for many transgender people with gender dysphoria. (*See* American Academy of Pediatrics, 2018; the American Medical Association, 2021; the Endocrine Society, 2020, the Pediatric Endocrine Society, 2021; the American Psychiatric Association, 2018; the American Psychological Association, 2021; the American Congress of Obstetricians and Gynecologists, 2021; the American Academy of Family Physicians, 2020; WPATH, 2012).

35. There is substantial evidence that hormone therapy and/or surgical care are effective in treating gender dysphoria. This evidence includes scientific studies assessing mental health outcomes for transgender people who are treated with these interventions, and decades of clinical experience.

36. The research and studies supporting the necessity, safety, and effectiveness of counseling, hormone therapy, and surgical care for gender dysphoria are the same type of evidence-based data that the medical community routinely relies upon when treating other medical conditions.

37. Medical treatment for gender dysphoria has been studied for over half a century, and there is substantial evidence that it improves quality of life and measures of mental health. (Aldridge et al., 2020; Almazon, et al., 2021; Baker et al., 2021; Murad, et al., 2010; Nobili et al., 2018; Pfafflin & Junge, 1998; T'Sjoen et al. 2019; van de Grift et al., 2017; White Hughto and Reisner, 2016; Wierckx et al., 2014).

38. A systematic review of 20 studies showed improved quality of life, decreased depression, and decreased anxiety with hormonal treatment in transgender people. (Baker, et al., 2021). Another systematic review showed improvement in mental health and quality of life measures in transgender people with hormonal treatment (White Hughto and Reisner, 2016). In the United Kingdom, one study demonstrated that depression and anxiety were substantially reduced over 18 months of gender-affirming hormonal treatment. (Aldridge, et al., 2020). In a secondary analysis of data from the US Transgender Survey, having had genital surgery was associated with decreased psychological distress and suicidal ideation. (Almazan, et al., 2021). In transgender patients followed 4-6 years after surgery, satisfaction was very high (over 90%) and regret was low. (van de Grift et al., 2018). The Cornell "What We Know" systematic review of 55 studies from 1991-2017 strongly supported that gender-affirming hormone and surgical treatment improved the well-being of transgender individuals. (What We Know, 2018).

39. The studies on gender-affirming medical care for treatment of dysphoria are consistent with decades of clinical experience of mental health providers across the U.S. and around the world. At professional conferences and other settings in which I interact with colleagues, clinicians report that gender-affirming medical care, for those for whom it is indicated, provides great clinical benefit. In my 30 years of clinical experience treating gender dysphoric patients, I have seen the benefits of gender-affirming medical care on my patients' health and well-being. I have seen many patients show improvements in mental health, as well as in performance in school, in social functioning with peers, and in family relationships when they experience relief from gender dysphoria with gender-affirming medical care.

40. Accordingly, treatments for gender dysphoria are not considered elective or cosmetic. WPATH (2016) states, "The medical procedures attendant to gender

affirming/confirming surgeries are not 'cosmetic' or 'elective' or 'for the mere convenience of the patient.' These reconstructive procedures are not optional in any meaningful sense, but are understood to be medically necessary for the treatment of the diagnosed condition. In some cases, such surgery is the **only** effective treatment for the condition, and for some people genital surgery is essential and life-saving."

41. As part of the treatment process for gender dysphoria, patients provide informed consent to their care. In addition, a treating doctor will not offer gender-affirming medical treatments unless they have concluded after weighing the risks and benefits of care that treatment is appropriate. The risks and benefits of care are discussed with the transgender patient, who must assent. This process is no different than the informed consent process for other treatments. However, for gender-affirming medical care, there is the additional safeguard of the assessment by a mental health professional, who, in addition to diagnosing gender dysphoria, also assesses capacity to consent and reviews the risks and benefits of treatment with the patient.

42. Regret among those who are treated with gender-affirming medical care is rare. For example, in one study in the Netherlands, none of the youth who received puberty blockers, hormones, and surgery, and followed over an 8-year period expressed regret. (DeVries, 2014.) Zucker, et al., (2010), summarizing key studies on regret for adolescents referred for surgery when they reached the age of majority in the Netherlands, states, "there was virtually no evidence of regret, suggesting that the intervention was effective."

43. Regret rates for gender-affirming surgery in adults are also very low. A pooled review across multiple studies of 7,928 patients receiving gender-affirming surgery showed a regret rate of 1%. (Bustos, et al., 2021). Over 50 years of gender-affirming surgery in Sweden, the regret rate, as measured by legal gender change reversal, was 2%. (Dhejne, et al., 2014). These are

very low regret rates for surgery. For example, 47% of women expressed at least some regret after reconstructive breast surgery following mastectomy for breast cancer. (Sheehan, et al., 2008).

44. For all the reasons above, I am aware of no basis in medicine or science for West Virginia's categorical Exclusion of coverage for gender-affirming care.

45. One misperception is that hormone therapy is experimental because the U.S. Food and Drug Administration ("FDA") has not yet approved its use for the specific application of treating Gender Dysphoria. Medications very commonly are prescribed for off-label uses. Many gender-affirming hormone treatments were approved for treatment of other conditions and have been used for those conditions as well as for gender-affirming care for many years, supporting their safety and efficacy. The U.S. Department of Health and Human Services Agency for Healthcare Research and Quality states, "[Off-label prescribing] is legal and common. In fact, one in five prescriptions written today are for off-label use." *See* https://www.ahrq.gov/patients-consumers/patient-involvement/off-label-drug-usage.html.

46. Finally, the cost of providing gender-affirming care is generally very low, particularly in the context coverage through group health plans. To begin, transgender people constitute a small percentage of the overall population, approximately 0.5%. (Crissman, et. al., 2017). Furthermore, the fraction of the population receiving clinical care for Gender Dysphoria is much smaller, well under one in a thousand patients (Zhang, et al., 2020). As a result, one study estimated an average cost of $0.016 cents per member per month to provide gender-affirming care. (Padula, et al., 2016). The authors conclude: "Health insurance coverage for the U.S. transgender population is affordable and cost-effective, and has a low budget impact on U.S. society." A study by Herman (2013) similarly found low costs to providing health coverage for gender affirming care. Additionally, when a form of treatment is covered for cisgender people under an insurance

plan, it is generally not disproportionately costly to cover the same treatment for transgender people simply because it is provided to treat gender dysphoria.

* * *

Interviews of the Plaintiffs

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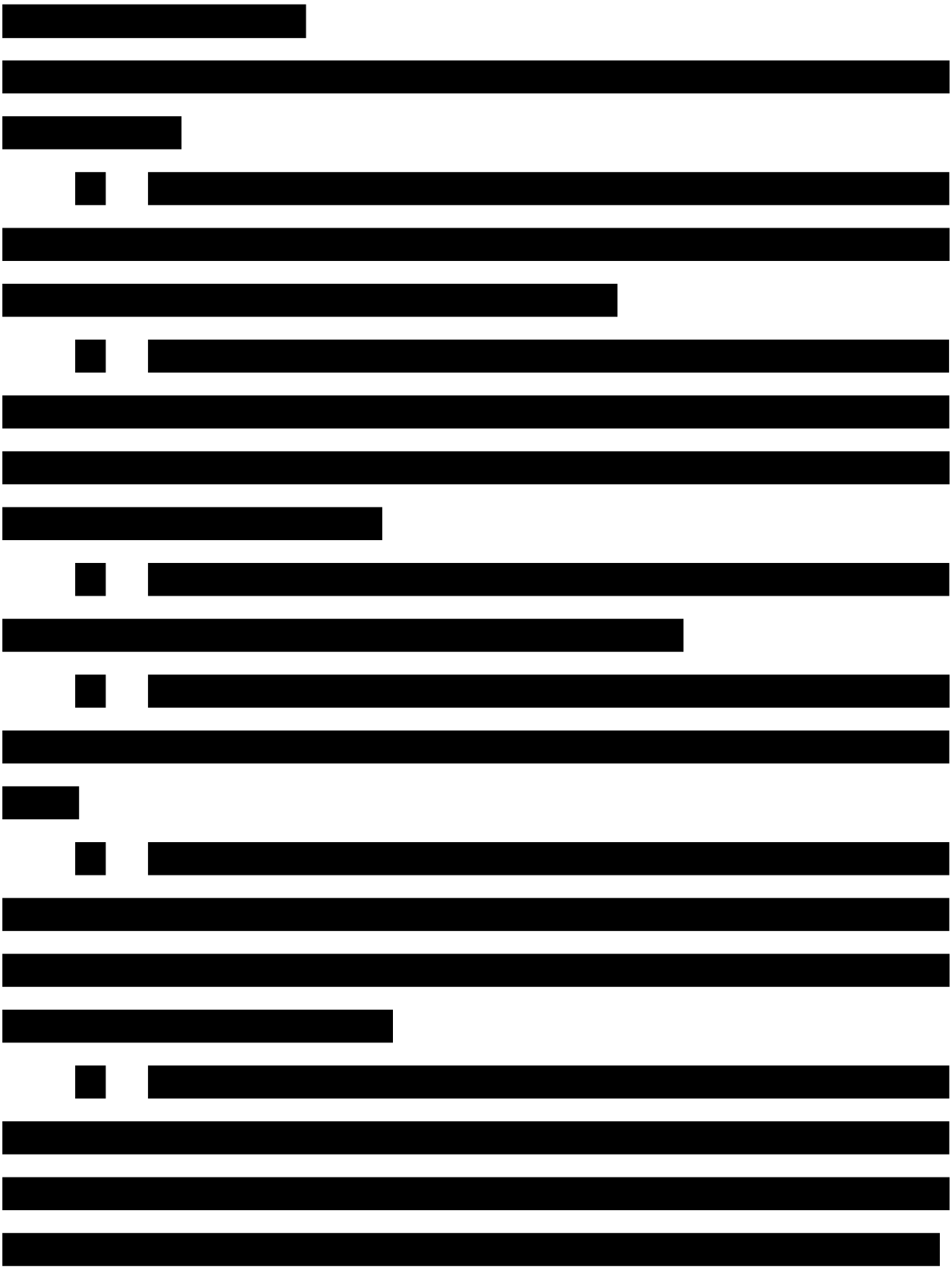

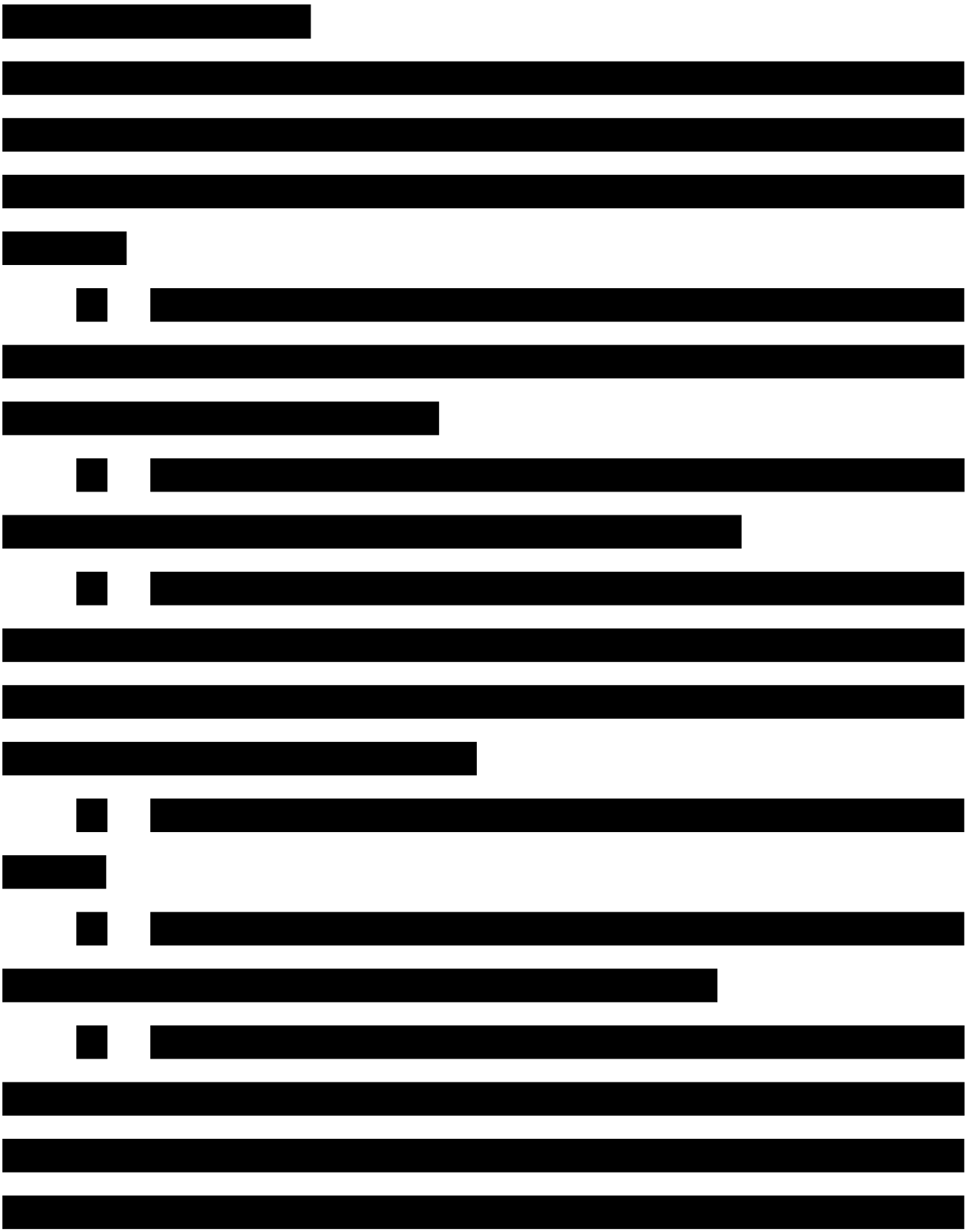

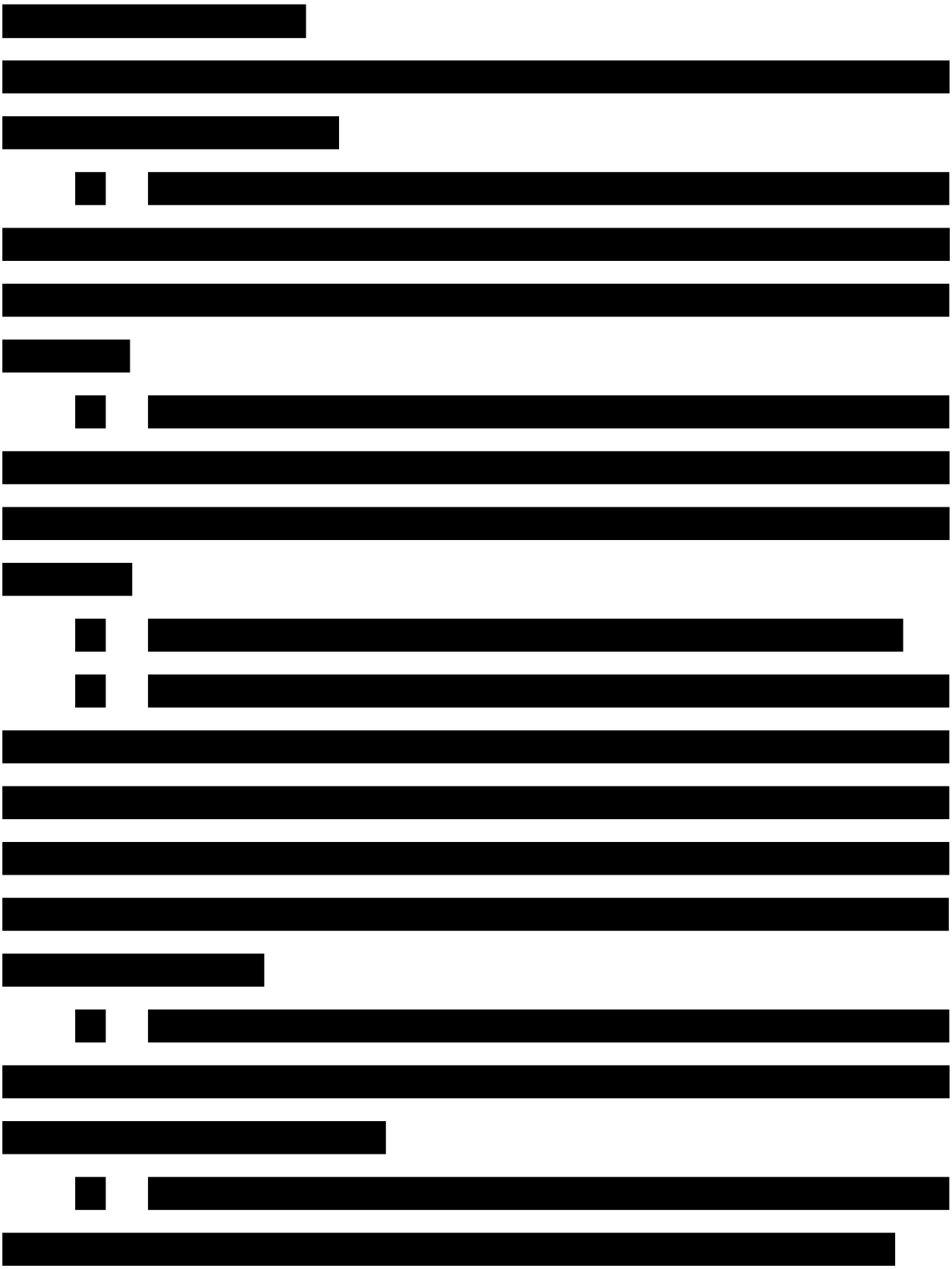

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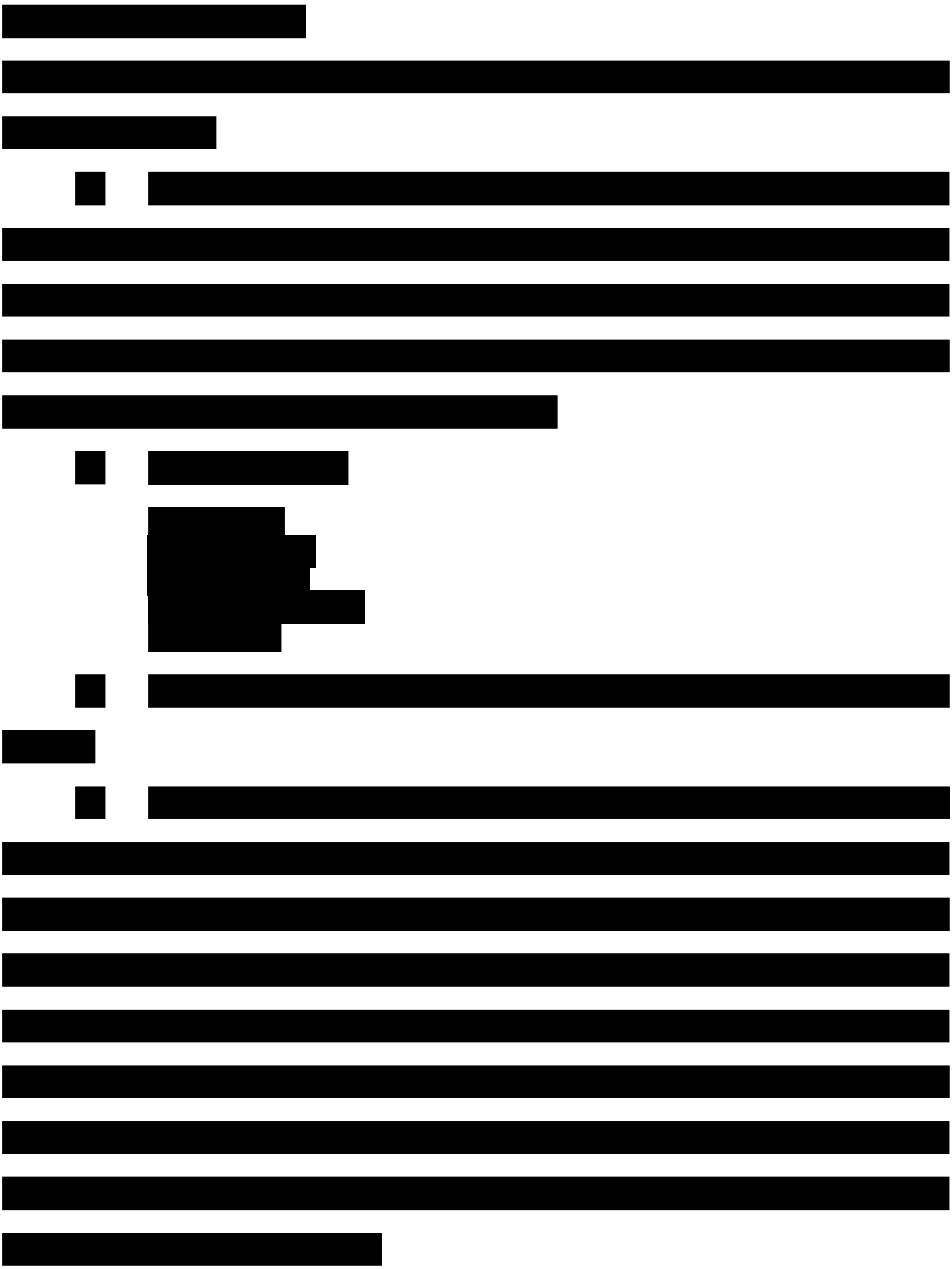

[redacted]

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

Executed this 13 day of January, 2022.

Dan H. Karasic, M.D.

Subscribed and sworn before me, a Notary Public in and for the FAIRFAX, State of VIRGINIA, this 13 day of January, 2022.

SEAL

VY NGOC THANH NGUYEN
ELECTRONIC NOTARY PUBLIC • REG. # 7305415
Commonwealth of Virginia
My Commission Expires 06/30/2024

Signature of Notary

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Final Audit Report 2022-01-14

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Exhibit A

University of California, San Francisco

CURRICULUM VITAE

Name: Dan H. Karasic, MD

Position: Professor Emeritus
Psychiatry
School of Medicine

Voice: 415-935-1511
Fax: 888-232-9336

EDUCATION

1978 - 1982	Occidental College, Los Angeles	A.B.; Summa Cum Laude	Biology
1982 - 1987	Yale University School of Medicine	M.D.	Medicine
1987 - 1988	University of California, Los Angeles	Intern	Medicine, Psychiatry, and Neurology
1988 - 1991	University of California, Los Angeles; Neuropsychiatric Institute	Resident	Psychiatry
1990 - 1991	University of California, Los Angeles; Department of Sociology	Postdoctoral Fellow	Training Program in Mental Health Services for Persons with AIDS

LICENSES, CERTIFICATION

1990	Medical Licensure, California, License Number G65105
1990	Drug Enforcement Administration Registration Number BK1765354
1993	American Board of Psychiatry and Neurology, Board Certified in Psychiatry

PRINCIPAL POSITIONS HELD

1991 - 1993	University of California, San Francisco	Health Sciences Psychiatry Clincial Instructor
1993 - 1999	University of California, San Francisco	Health Sciences Psychiatry Assistant Clinical Professor
1999 - 2005	University of California, San Francisco	Health Sciences Psychiatry

		Associate Clinical Professor	
2005 - present	University of California, San Francisco	Health Sciences Psychiatry Clinical Professor	

OTHER POSITIONS HELD CONCURRENTLY

1980 - 1980	Associated Western Universities / U.S. Department of Energy	Honors Undergraduate Research Fellow	UCLA Medicine
1981 - 1981	University of California, Los Angeles; American Heart Association, California Affiliate	Summer Student Research Fellow	UCLA Medicine
1986 - 1987	Yale University School of Medicine; American Heart Association, Connecticut Affiliate	Medical Student Research Fellow	Psychiatry
1990 - 1991	University of California, Los Angeles Postdoctoral	Sociology Fellow	
1991 - 2001	SFGH Consultation-Liaison Service; AIDS Care	Attending Psychiatrist	Psychiatry
1991 - 2001	AIDS Consultation-Liaison Medical Student Elective	Course Director	Psychiatry
1991 - present	UCSF Positive Health Program at San General Hospital (Ward 86)	HIV/AIDS Outpatient Psychiatrist	Psychiatry Francisco
1991 - present	UCSF AHP (AIDS Health Project/Alliance Health Project)	HIV/AIDS Outpatient Psychiatrist	Psychiatry
1994 - 2002	St. Mary's Medical Center CARE Unit. The CARE Unit specializes in the care of patients with AIDS dementia.	Consultant	Psychiatry
2001 - 2010	Depression and Antiretroviral Adherence Study (The H.O.M.E. study: Health Outcomes of Mood Enhancement)	Clinical Director	Psychiatry and Medicine
2003 - 2020	Transgender Life Care Program and Clinic, Castro Mission Health Center	Psychiatrist Dimensions Clinic	Dimensions
2013 - 2020	UCSF Alliance Health Project, Co-lead, Transgender Team	Co-Lead and Psychiatrist	Psychiatry

HONORS AND AWARDS

1981	Phi Beta Kappa Honor Society	Phi Beta Kappa
1990	NIMH Postdoctoral Fellowship in Mental Health Services for People with	National Institute of Mental Health

	AIDS (1990-1991)	
2001	Lesbian Gay Bisexual Transgender Leadership Award, LGBT Task Force of the Cultural Competence and Diversity Program	SFGH Department of Psychiatry
2006	Distinguished Fellow	American Psychiatric Association
2012	Chancellor's Award for Leadership in LGBT Health	UCSF

KEYWORDS/AREAS OF INTEREST

Psychiatry, HIV/AIDS, consultation-liaison, medication adherence, gay/lesbian, transgender, gender dysphoria, sexuality, homeless/marginally housed, mood disorders, teaching/supervision

CLINICAL ACTIVITIES SUMMARY

As psychiatrist for the Positive Health Practice at Ward 86, I evaluated and treated patients with psychiatric illness and HIV. I provide consultation to internists, fellows, and nurse practitioners on managing psychiatric illness in their patients. Clinical work includes attention to the needs of special populations, including working with a multidisciplinary team in a drop-in clinic for HIV-positive women, and addressing issues emerging in HIV and Hepatitis C co-infection. As psychiatrist at the UCSF Alliance Health Project, I evaluated and treated patients and I am co-chair of the Gender Team, which provides assessment and care for transgender patients. As psychiatrist for the Transgender Life Care program and Dimensions Clinic, I evaluate and treat transgender patients, working with a multidisciplinary team at Castro Mission Health Center. In my faculty practice, I treated transgender, gender dysphoric, and HIV-positive patients referred from providers across Northern California, and I provide consultation on challenging cases to psychologists and other psychotherapists working with transgender and gender dysphoric patients.

MEMBERSHIPS

1992 - present Northern California Psychiatric Society

1992 - present American Psychiatric Association

2000 - 2019 Bay Area Gender Associates (an organization of psychotherapists working with transgendered clients)

2001 - present World Professional Association for Transgender Health

SERVICE TO PROFESSIONAL ORGANIZATIONS

1981 - 1982	The Occidental	News Editor
1984 - 1985	Yale University School of Medicine	Class President
1989 - 1991	Kaposi's Sarcoma Group, AIDS Project Los Angeles	Volunteer Facilitator
1992 - 1996	Early Career Psychiatrist Committee, Association of Gay and Lesbian Psychiatrists	Chair and
1992 - 1996	Board of Directors, Association of Gay and Lesbian Psychiatrists	Member

1993 - 1993	Local Arrangements Committee, Association of Gay and Psychiatrists	Chair Lesbian
1994 - 1995	Educational Program, Association of Gay and Lesbian 1995 Annual Meeting	Director Psychiatrists,
1994 - 1998	Board of Directors, BAY Positives	Member
1994 - present	Committee on Lesbian, Gay, Bisexual and Transgender Issues, Northern California Psychiatric Society	Member
1995 - 1997	Board of Directors, Bay Area Young Positives. BAY Positives is the nation's first community-based organization providing psychosocial and recreational services to HIV-positive youth	President
1995 - 1997	Executive Committee, Bay Area Young Positives.	Chair
1996 - 2004	Committee on Lesbian, Gay, Bisexual and Transgender Issues, Northern California Psychiatric Society	Chair
1998 - 2002	City of San Francisco Human Rights Commission, Lesbian, Gay Bisexual Transgender Advisory Committee	Member
2000 - 2004	Association of Gay and Lesbian Psychiatrists. for the organization's educational programs	Vice President Responsible
2004 - 2005	Association of Gay and Lesbian Psychiatrists	President-elect
2005 - 2007	Caucus of Lesbian, Gay, and Bisexual Psychiatrists of the American Psychiatric Association	Chair
2005 - 2007	Association of Gay and Lesbian Psychiatrists	President
2007 - 2009	Association of Gay and Lesbian Psychiatrists	Immediate Past President
2009 - 2010	Consensus Committee for Revision of the Sexual and Gender Identity Disorders for DSM-V, GID of Adults subcommittee. (Wrote WPATH recommendations as advisory body to the APA DSM V Committee for the Sexual and Gender Identity Disorders chapter revision.)	Member
2010 - 2011	Scientific Committee, 2011 WPATH Biennial Symposium, Atlanta	Member
2010 -2022	World Professional Association for Transgender Care Standards of Care Workgroup and Committee (writing seventh and eighth revisions of the WPATH Standards of Care, which is used internationally for transgender care.)	Member
2010 - 2018	ICD 11 Advisory Committee, World Professional Association for Transgender Health	Member
2012 - 2014	Psychiatry and Diagnosis Track Co-chair, Scientific 2014 WPATH Biennial Symposium, Bangkok	Member Committee,
2014 - 2016	Scientific Committee, 2016 WPATH Biennial Symposium, Amsterdam	Member

2014 - 2018	Board of Directors (elected to 4 year term), World Professional Association for Transgender Health	Member
2014 - 2018	Public Policy Committee, World Professional Association for Transgender Health	Chair
2014 - 2018	WPATH Global Education Initiative: Training providers specialty certification in transgender health	Trainer and and Steering Committee Member
2014 - 2016	American Psychiatric Association Workgroup on Gender Dysphoria	Member
2016 - present	American Psychiatric Association Workgroup on Gender Dysphoria	Chair
2016	USPATH: Inaugural WPATH U.S. Conference, Los Angeles, 2017	Conference Chair

SERVICE TO PROFESSIONAL PUBLICATIONS

2011 - present Journal of Sexual Medicine, reviewer

2014 - present International Journal of Transgenderism, reviewer

2016 - present LGBT Health, reviewer

INVITED PRESENTATIONS - INTERNATIONAL

2009	World Professional Association for Transgender Health, Oslo, Norway	Plenary Session Speaker
2009	World Professional Association for Transgender Health, Oslo, Norway	Symposium Speaker
2009	Karolinska Institutet, Stockholm Sweden	Invited Lecturer
2012	Cuban National Center for Sex Education (CENESEX), Havana, Cuba	Invited Speaker
2013	Swedish Gender Clinics Annual Meeting, Stockholm, Sweden	Keynote Speaker
2013	Conference on International Issues in Transgender care, United Nations Development Programme - The Lancet, Beijing, China	Expert Consultant
2014	World Professional Association for Transgender Health, Bangkok, Thailand	Track Chair
2014	World Professional Association for Transgender Health, Bangkok, Thailand	Invited Speaker
2014	World Professional Association for Transgender Health, Bangkok, Thailand	Invited Speaker
2015	European Professional Association for Transgender Health, Ghent, Belgium	Invited Speaker
2015	European Professional Association for Transgender Health, Ghent, Belgium	Symposium Chair

2015	Israeli Center for Human Sexuality and Gender Identity, Aviv	Invited Speaker Tel
2016	World Professional Association for Transgender Health, Amsterdam	Symposium Chair
2016	World Professional Association for Transgender Health, Amsterdam	Invited Speaker
2016	World Professional Association for Transgender Health, Amsterdam	Invited Speaker
2017	Brazil Professional Association for Transgender Health, Paulo	Sao
2017	Vietnam- United Nations Development Programme Asia Transgender Health Conference, Hanoi	
2018	United Nations Development Programme Asia Conference on Transgender Health and Human Rights, Bangkok	
2018	World Professional Association for Transgender Health, Buenos Aires	Invited Speaker
2021	Manitoba Psychiatric Association, Keynote Speaker	

INVITED PRESENTATIONS - NATIONAL

1990	Being Alive Medical Update, Century Cable Television	Televised Lecturer
1992	Institute on Hospital and Community Psychiatry, Toronto	Symposium Speaker
1992	Academy of Psychosomatic Medicine Annual Meeting, San Diego	Symposium Speaker
1994	American Psychiatric Association 150th Annual Meeting, Philadelphia	Workshop Chair
1994	American Psychiatric Association 150th Annual Meeting, Philadelphia	Workshop Speaker
1994	American Psychiatric Association 150th Annual Meeting, Philadelphia	Paper Session Co-chair
1995	Spring Meeting of the Association of Gay and Lesbian Psychiatrists, Miami Beach	Symposium Chair
1996	American Psychiatric Association 152nd Annual Meeting, New York	Workshop Speaker
1997	American Psychiatric Association Annual Meeting, San Diego	Workshop Speaker
1997	Gay and Lesbian Medical Association Annual	Invited Speaker Symposium
1998	American Psychiatric Association Annual Meeting,	Workshop Chair

	Toronto	
1998	American Psychiatric Association Annual Meeting, Toronto	Workshop Chair
1998	American Psychiatric Association Annual Meeting, Toronto	Media Session Chair
1998	American Psychiatric Association Annual Meeting, Toronto	Media Session Chair
1999	American Psychiatric Association Annual Meeting, Washington, D.C.	Symposium Chair
1999	American Psychiatric Association Annual Meeting, Washington, D.C.	Symposium Presenter
1999	American Psychiatric Association Annual Meeting, Washington, D.C.	Workshop Chair
2000	American Psychiatric Association Annual Meeting, Chicago	Workshop Chair
2000	National Youth Leadership Forum On Medicine, University of California, Berkeley	Invited Speaker
2001	American Psychiatric Association Annual Meeting, New Orleans	Workshop Chair
2001	American Psychiatric Association Annual Meeting, New Orleans	Media Program Chair
2001	Association of Gay and Lesbian Psychiatrists Symposium, New Orleans	Chair
2001	Harry Benjamin International Gender Dysphoria Association Biennial Meeting, Galveston, Texas	Invited Speaker
2002	American Psychiatric Association Annual Meeting, Philadelphia	Media Program Chair
2002	American Psychiatric Association Annual Meeting, Philadelphia	Workshop Chair
2002	American Psychiatric Association Annual Meeting, Philadelphia	Workshop Chair
2003	Association of Gay and Lesbian Psychiatrists CME	Chair Conference
2003	American Psychiatric Association Annual Meeting, San Francisco	Symposium Chair
2003	American Psychiatric Association Annual Meeting, San Francisco	Symposium Co-Chair
2003	American Psychiatric Association Annual Meeting, San Francisco	Workshop Chair

2003	American Public Health Association Annual Meeting, San Francisco	Invited Speaker
2004	Mission Mental Health Clinic Clinical Conference	Invited Speaker
2004	Association of Gay and Lesbian Psychiatrists Conference, New York	Co-Chair
2004	Mental Health Care Provider Education Program: Los Angeles. Sponsored by the American Psychiatric Association Office of HIV Psychiatry	Invited Speaker
2005	American Psychiatric Association Annual Meeting, Atlanta	Workshop Speaker
2005	Association of Gay and Lesbian Psychiatrists Saturday Symposium	Invited Speaker
2008	Society for the Study of Psychiatry and Culture, San Francisco	Invited Speaker
2009	American Psychiatric Association Annual Meeting, San Francisco	Symposium Speaker
2011	National Transgender Health Summit, San Francisco	Invited Speaker
2011	National Transgender Health Summit, San Francisco	Invited Speaker
2011	American Psychiatric Association Annual Meeting, Honolulu, HI	Symposium Chair
2011	American Psychiatric Association Annual Meeting, Honolulu, HI	Symposium Speaker
2011	World Professional Association for Transgender Health Biennial Conference, Atlanta, GA	Invited Speaker
2011	World Professional Association for Transgender Health Biennial Conference, Atlanta, GA	Invited Speaker

		Invited Speaker
2011	World Professional Association for Transgender Health Biennial Conference, Atlanta, GA	
2011	Institute on Psychiatric Services, San Francisco	Invited Speaker
2012	Gay and Lesbian Medical Association Annual Meeting	Invited Speaker
2013	National Transgender Health Summit, Oakland, CA	Invited Speaker
2013	National Transgender Health Summit, Oakland, CA	Invited Speaker
2013	National Transgender Health Summit, Oakland, CA	Invited Speaker
2013	American Psychiatric Association Annual Meeting, San Francisco	Invited Speaker
2013	Gay and Lesbian Medical Association, Denver, CO	Invited Speaker
2014	American Psychiatric Association Annual Meeting, New	Invited Speaker York
2014	Institute on Psychiatric Services, San Francisco	Moderator
2014	Institute on Psychiatric Services, San Francisco	Invited Speaker
2014	Institute on Psychiatric Services, San Francisco	Invited Speaker
2015	National Transgender Health Summit, Oakland, CA	Invited Speaker
2015	National Transgender Health Summit, Oakland, CA	Invited Speaker
2015	American Psychiatric Association Annual Meeting, Toronto	Workshop Speaker
2015	American Psychiatric Association Annual Meeting, Toronto	Course Faculty
2016	American Psychiatric Association Annual Meeting	Course Faculty
2016	World Professional Association for Transgender Health Global Education Initiative, Atlanta	Course Faculty
2016	World Professional Association for Transgender Health Global Education Initiative, Springfield, MO	Course Faculty
2016	World Professional Association for Transgender Health Global Education Initiative, Fort Lauderdale, FL	Course Faculty
2017	World Professional Association for Transgender Health, GEI, Los Angeles Course Faculty	
	World Professional Association for Transgender Health	

Surgeon's Training, Irvine, CA Course Faculty

2017 American Urological Association Annual Meeting, San Francisco CA Invited Speaker

2018 World Professional Association for Transgender Health GEI, Portland OR, Course Faculty

2018 World Professional Association for Transgender Health GEI, Palm Springs, Course Faculty

2019 American Society for Adolescent Psychiatry Annual Meeting, San Francisco, Speaker

2019 American Psychiatric Association Annual Meeting, San Francisco, Session Chair

2020 Psychiatric Congress, Invited Speaker

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

1990	Advanced Group Therapy Seminar, UCLA Neuropsychiatric Institute	Invited Lecturer
1991	Joint Project of the Southern California AIDS Interfaith Council and UCLA School of Medicine	Symposium Speaker
1991	Joint Project of the Southern California AIDS Interfaith Council and UCLA School of Medicine	Workshop Panelist
1992	Advanced Group Therapy Seminar, UCLA Neuropsychiatric Institute	Invited Lecturer
1993	UCSF School of Nursing	Invited Lecturer
1995	UCSF/SFGH Department of Medicine Clinical Care Conference	Invited Speaker
1996	UCSF School of Nursing	Invited Speaker
1996	Psychopharmacology for the Primary Care AIDS/Clinician, series of four lectures, UCSF Department of Medicine	Invited Lecturer
1996	UCSF AIDS Health Project Psychotherapy Internship Training Program	
1996	UCSF/SFGH Department of Medicine AIDS Quarterly Update	Invited Speaker

		Invited Speaker
1996	San Francisco General Hospital, Division of Addiction Medicine	Invited Speaker
1996	UCSF Langley Porter Psychiatric Hospital and Clinics Rounds	Invited Speaker Grand
1997	UCSF School of Nursing	Invited Speaker
1997	UCSF Department of Medicine AIDS Program	Invited Speaker
1997	Northern California Psychiatric Society Annual Meeting, Monterey	Workshop Speaker
1997	San Francisco General Hospital Department of Psychiatry Grand Rounds	Invited Speaker
1997	San Francisco General Hospital Department of Psychiatry Grand Rounds	Invited Speaker
1997	Northern California Psychiatric Society LGBT Committee Chair Fall Symposium	
1997	Progress Foundation, San Francisco	Invited Speaker
1998	San Francisco General Hospital Department of Psychiatry Grand Rounds	Invited Speaker
1999	Northern California Psychiatric Society Annual Meeting, Santa Rosa	Invited Speaker
1999	Northern California Psychiatric Society Annual Meeting, Santa Rosa	Invited Speaker
1999	University of California, Davis, Department of Psychiatry Rounds	Invited Speaker Grand
1999	California Pacific Medical Center Department of Grand Rounds	Invited Speaker Psychiatry
1999	San Francisco General Hospital Department of Psychiatry Departmental Case Conference	Discussant
2000	Langley Porter Psychiatric Hospital and Clinics Consultation Liaison Seminar	Invited Speaker
2000	San Francisco General Hospital, Psychopharmacology Seminar	Invited Speaker
2000	UCSF Transgender Health Conference, Laurel Heights Conference Center	Invited Speaker
2000	Psychiatry Course for UCSF Second Year Medical Students	Invited Lecturer
2000	Community Consortium Treatment Update Symposium, California Pacific Medical Center, Davies Campus	Invited Speaker

2000	San Francisco General Hospital Department of Psychiatry Grand Rounds	Invited Speaker
2001	Psychiatry Course for UCSF Second Year Medical Students	Invited Lecturer
2003	Tom Waddell Health Center Inservice	Invited Speaker
2003	San Francisco Veterans Affairs Outpatient Clinic	Invited Speaker
2004	San Francisco General Hospital Psychiatric Emergency Service Clinical Conference	Invited Speaker
2004	South of Market Mental Health Clinic, San Francisco	Invited Speaker
2005	Northern Psychiatric Psychiatric Society Annual Meeting	Invited Speaker
2005	Equality and Parity: A Statewide Action for Transgender Prevention and Care, San Francisco	Invited Speaker HIV
2005	San Francisco General Hospital Department of Psychiatry Grand Rounds.	Invited Speaker
2006	SFGH/UCSF Department of Psychiatry Grand Rounds	Invited Speaker
2007	UCSF Department of Medicine, HIV/AIDS Grand Rounds, Positive Health Program	Invited Speaker
2007	California Pacific Medical Center LGBT Health Symposium, San Francisco LGBT Community Center	Invited Speaker
2007	UCSF CME Conference, Medical Management of HIV/AIDS, Fairmont Hotel, San Francisco	Invited Speaker
2008	UCSF Department of Medicine, Positive Health Program, HIV/AIDS Grand Rounds	Invited Speaker
2008	San Francisco General Hospital Psychiatry Grand Rounds	Invited Speaker
2008	UCSF CME Conference, Medical Management of HIV/AIDS, Fairmont Hotel, San Francisco	Invited Speaker
2010	Northern California Psychiatric Society Annual Meeting, Monterey, CA	Invited Speaker
2011	Transgender Mental Health Care Across the Life Span, Stanford University	Invited Speaker
2011	San Francisco General Hospital Department of Psychiatry Grand Rounds	Invited Speaker
2012	UCSF AIDS Health Project Invited Speaker 2012 San Francisco Veterans Affairs Medical Center.	
2013	Association of Family and Conciliation Courts Conference, Los Angeles, CA	Invited Speaker
2014	UCSF Transgender Health elective	Invited Speaker
2014	UCSF Department of Psychiatry Grand Rounds	Invited Speaker

2014	California Pacific Medical Center Department of Grand Rounds	Invited Speaker Invited Speaker Psychaitry
2014	UCLA Semel Institute Department of Psychiatry Grand Rounds	Invited Speaker
2015	UCSF Transgender Health elective	Invited Speaker
2015	Fenway Health Center Boston, MA (webinar)	Invited Speaker
2015	Transgender Health Symposium, Palm Springs	Invited Speaker
2015	Transgender Health Symposium, Palm Springs	Co-Chair
2015	Santa Clara Valley Medical Center Grand Rounds	Invited Speaker
2016	UCSF School of Medicine Transgender Health elective	Invited Speaker
2016	Langley Porter Psychiatric Institute APC Case Conference	Invited Speaker (2 session series)
2016	Zuckerberg San Francisco General Department of Psychiatry Grand Rounds	Invited Speaker
2016	UCSF Mini-Medical School Lectures to the Public	Invited Speaker
2021	Los Angeles County Department of Mental Health,	Invited Speaker

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

2005	Northern California Psychiatric Society
2005	Northern California Psychiatric Society Annual Meeting, Napa
2005	Association of Gay and Lesbian Psychiatrist Annual Conference
2006	Annual Meeting, American Psychiatric Association, Atlanta
2006	Annual Meeting, American Psychiatric Association, Toronto
2006	Institute on Psychiatric Services, New York
2007	Association of Gay and Lesbian Psychiatrists Annual Conference
2007	American Psychiatric Association Annual Meeting, San Diego
2007	The Medical Management of HIV/AIDS, a UCSF CME Conference
2008	Society for the Study of Psychiatry and Culture, San Francisco
2009	American Psychiatric Association, San Francisco
2009	World Professional Association for Transgender Health, Oslo, Norway
2010	Annual Meeting of the Northern California Psychiatric Society, Monterey, CA

2011	Transgender Mental Health Care Across the Life Span, Stanford University
2011	National Transgender Health Summit, San Francisco
2011	American Psychiatric Association Annual Meeting, Honolulu, HI
2011	World Professional Association for Transgender Health Biennial Conference, Atlanta, GA
2011	Institute on Psychiatric Services, San Francisco
2012	Gay and Lesbian Medical Association Annual Meeting, San Francisco
2013	National Transgender Health Summit, Oakland, CA
2013	American Psychiatric Association Annual Meeting, San Francisco
2013	Gay and Lesbian Medical Association, Denver, CO
2014	American Psychiatric Association Annual Meeting, New York
2014	Institute on Psychiatric Services, San Francisco
2015	European Professional Association for Transgender Health, Ghent, Belgium
2015	National Transgender Health Summit, Oakland
2015	American Psychiatric Association Annual Meeting, Toronto
2016	American Psychiatric Association Annual Meeting, Atlanta
2016	World Professional Association for Transgender Health, Amsterdam

GOVERNMENT AND OTHER PROFESSIONAL SERVICE

1998 - 2002	City and County of San Francisco Human Rights Member Commission LGBT Advisory Committee

SERVICE ACTIVITIES SUMMARY

My current service work focuses on developing transgender care at UCSF, nationally, and internationally.

I worked with urologist Maurice Garcia, MD on developing protocols as well as outcome measures for the UCSF Transgender Surgery Program at UCSF Medical Center. I am on the Medical Advisory Board of the UCSF Center of Excellence for Transgender Care, and have cowritten the mental health section of the original Primary Care Protocols and the new revision. I have chaired the Mental Health Track of UCSF's National Transgender Health Summit since its inception in 2011. I am a founder and co-chair of the Gender Team at the UCSF Alliance Health Project. I helped develop, and participated as a trainer, in the San Francisco
Department of Public Health provider training program for care of transgender patients and for mental health assessments for surgery, and have worked in program development for the SFDPH Transgender Health Services surgery program.

I am the chair of the American Psychiatric Association Workgroup on Gender Dysphoria, which developed a CME course fort the 2015 and 2016 APA Annual Meetings, and is now embarking on a larger educational mission to train American psychiatrists to better care for transgender patients. I have been leading education efforts in transgender health at APA meetings since 1998. On the APA Workgroup on Gender Dysphoria, I am a co-author of a paper of transgender issues that has been approved by the American Psychiatric Association as a resource document and is in press for the American Journal of Psychiatry. I am also the sole author of the chapter on transgender care in the American Psychiatric Press's Clinical Manual of Cultural Psychiatry, Second Edition.

I have been active internationally in transgender health through my work as a member of the Board of Directors of the World Professional Association for Transgender Health. I am an author of the WPATH Standards of Care, Version 7, and am Chapter Lead for the Mental Health Chapter of SOC 8.
I chaired of the WPATH Public Policy Committee and was a member of the Global Education Initiative, which developed a specialty certification program in transgender health. I helped plan the 2016 WPATH Amsterdam conference, and was on the scientific committee for the last four biennial international conferences. I was on the founding committee of USPATH, the national affiliate of WPATH, and I chaired the inaugural USPATH conference, in Los Angeles in 2017. As a member of the steering committee of the WPATH Global Educational Initiative, I helped train over 2000 health providers in transgender health, and helped develop a board certification program and examination in transgender health.

UNIVERSITY SERVICE UC SYSTEM AND MULTI-CAMPUS SERVICE

1991 - present	HIV/AIDS Task Force	Member
1992 - 1993	HIV Research Group	Member
1992 - 1997	Space Committee	Member
1992 - present	Gay, Lesbian and Bisexual Issues Task Force	Member
1994 - 1997	SFGH Residency Training Committee	Member
1996 - 1997	Domestic Partners Benefits Subcommittee.	Chair
1996 - 2000	Chancellor's Advisory Committee on Gay, Lesbian, and Transgender Issues.	Member Bisexual
1996 - 2003	HIV/AIDS Task Force	Co-Chair
1996 - 2003	Cultural Competence and Diversity Program	Member
2009 - present	Medical Advisory Board, UCSF Center of Excellence for Transgender Health	Member
2010 - present	Steering Committee, Child Adolescent Gender Center	Member
2011 - present	Mental Health Track, National Transgender Health Summit	Chair

DEPARTMENTAL SERVICE

1991 - present	San Francisco General Hospital, Department of Psychiatry, HIV/AIDS Task Force	Member

1992 - 1993 San Francisco General Hospital, Department of Psychiatry, Member HIV Research Group

1992 - 1997 San Francisco General Hospital, Department of Psychiatry, Member Space Committee

1992 - 2003 San Francisco General Hospital, Department of Psychiatry, Member GLBT Issues Task Force

1994 - 1997 San Francisco General Hospital, Department of Psychiatry, Member Residency Training Committee

1996 - 2003 San Francisco General Hospital, Department of Psychiatry, Member Cultural Competence and Diversity Program

1996 - 2003 San Francisco General Hospital, Department of Psychiatry, Co-Chair HIV/AIDS Task Force

2012 - 2020 San Francisco Department of Public Health Gender Member Competence Trainings Committee

2013 - 2020 San Francisco Department of Public Health Transgender Member Health Implementation Task Force

2014 - 2020San Francisco General Hospital, Department of Psychiatry, Member Transgender Surgery Planning Workgroup

PEER REVIEWED PUBLICATIONS

1. Berliner JA, Frank HJL, **Karasic D**, Capdeville M. Lipoprotein-induced insulin resistance in aortic endothelium. Diabetes. 1984; 33:1039-44.
2. Bradberry CW, **Karasic DH**, Deutch AY, Roth RH. Regionally-specific alterations in mesotelencephalic dopamine synthesis in diabetic rats: association with precursor tyrosine. Journal of Neural Transmission. General Section, 1989; 78:221-9.
3. Targ EF, **Karasic DH**, Bystritsky A, Diefenbach PN, Anderson DA, Fawzy FI. Structured group therapy and fluoxetine to treat depression in HIV-positive persons. Psychosomatics. 1994; 35:132-7.
4. Karasic DH. Homophobia and self-destructive behaviors. The Northern California Psychiatric Physician. 1996; 37 Nov.-Dec. Reprinted by the Washington State Psychiatric Society and the Southern California Psychiatric Society newsletters.
5. Karasic D. Anxiety and anxiety disorders. Focus. 1996 Nov; 11(12):5-6. PMID: 12206111
6. Polansky JS, **Karasic DH**, Speier PL, Hastik KL, Haller E. Homophobia: Therapeutic and training considerations for psychiatry. Journal of the Gay and Lesbian Medical Association. 1997 1(1) 41-47.
7. Karasic DH. Progress in health care for transgendered people. Editorial. Journal of the Gay and Lesbian Medical Association, 4(4) 2000 157-8.
8. Perry S, **Karasic D.** Depression, adherence to HAART, and survival. Focus: A Guide to AIDS Research and Counseling. 2002 17(9) 5-6.

9. Fraser L, **Karasic DH**, Meyer WJ, Wylie, K. Recommendations for Revision of the DSM Diagnosis of Gender Identity Disorder in Adults. International Journal of Transgenderism. Volume 12, Issue 2. 2010, Pages 80-85.

10. Coleman, E., Bockting, W., Botzer, M., Cohen-Kettenis, P., DeCuypere, G., Feldman, J., Fraser, L., Green, J., Knudson, G., Meyer, W., Monstrey, S., **Karasic D** and 22 others. (2011). Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People, 7th Version. International Journal of Transgenderism, 13:165-232, 2011

11. Tsai AC, **Karasic DH**, et al. Directly Observed Antidepressant Medication Treatment and HIV Outcomes Among Homeless and Marginally Housed HIV-Positive Adults: A Randomized Controlled Trial. American Journal of Public Health. February 2013, Vol. 103, No. 2, pp. 308-315.

12. Tsai AC, Mimmiaga MJ, Dilley JW, Hammer GP, **Karasic DH**, Charlebois ED, Sorenson JL, Safren SA, Bangsberg DR. Does Effective Depression Treatment Alone Reduce Secondary HIV Transmission Risk? Equivocal Findings from a Randomized Controlled Trial. AIDS and Behavior, October 2013, Volume 17, Issue 8, pp 2765-2772.

13. **Karasic DH.** Protecting Transgender Rights Promotes Transgender Health. LGBT Health. 2016 Aug; 3(4):245-7. PMID: 27458863

14. Winter S, Diamond M, Green J, **Karasic D**, Reed T, Whittle S, Wylie K. Transgender people: health at the margins of society. Lancet. 2016 Jul 23;388(10042):390-400. doi: 10.1016/S0140-6736(16)00683-8. Review./> PMID: 27323925

15. Grelotti DJ, Hammer GP, Dilley JW, **Karasic DH**, Sorensen JL, Bangsberg DR, Tsai AC. Does substance use compromise depression treatment in persons with HIV? Findings from a randomized controlled trial. AIDS Care. 2016 Sep 2:1-7. [Epub ahead of print]/> PMID: 27590273

16. Strang JF, Meagher H, Kenworthy L, de Vries AL, Menvielle E, Leibowitz S, Janssen A, Cohen-Kettenis P, Shumer DE, Edwards-Leeper L, Pleak RR, Spack N, **Karasic DH**, Schreier H, Balleur A, Tishelman A, Ehrensaft D, Rodnan L, Kuschner ES, Mandel F, Caretto A, Lewis HC, Anthony LG.
Initial Clinical Guidelines for Co-Occurring Autism Spectrum Disorder and Gender Dysphoria or Incongruence in Adolescents. J Clin Child Adolesc Psychol. 2016 Oct 24:1-11. [Epub ahead of print]/> PMID: 27775428

17. Milrod C, **Karasic DH.** Age Is Just a Number: WPATH-Affiliated Surgeons' Experiences and Attitudes Toward Vaginoplasty in Transgender Females Under 18 Years of Age in the United States. J Sex Med 2017;14:624–634.

18. **Karasic, DH** & Fraser, L Multidisciplinary Care and the Standards of Care for Transgender and Gender Non-conforming Individuals. Schechter, L & Safa, B. (Eds.) Gender Confirmation Surgery, Clinics in Plastic Surgery Special Issue, Vol 45, Issue 3, pp 295-299. 2018 Elsevier,Philadelphia. https://doi.org/10.1016/j.cps.2018.03.016

19. Milrod C, Monto M, **Karasic DH.** Recommending or Rejecting "the Dimple": WPATHAffiliated Medical Professionals' Experiences and Attitudes Toward Gender-Confirming Vulvoplasty in Transgender Women. J Sex Med. 2019 Apr;16(4):586-595. doi: 10.1016/j.jsxm.2019.01.316. Epub 2019 Mar 2.

BOOKS AND CHAPTERS

1. **Karasic DH**, Dilley JW. Anxiety and depression: Mood and HIV disease. In: The UCSF AIDS Health Project Guide to Counseling: Perspectives on Psychotherapy, Prevention, and Therapeutic Practice. Dilley JW and Marks R, eds. Jossey-Bass. San Francisco, 1998, pp.227-248.
2. **Karasic DH**, Dilley JW. Human immunodeficiency-associated psychiatric disorders. In: The AIDS Knowledge Base, Third Edition. Cohen PT, Sande MA, Volberding PA, eds. Lippincott-Williams &Wilkens, Philadelphia, 1999, pp. 577-584.
3. **Karasic DH** and Drescher J. eds. Sexual and Gender Diagnoses of the Diagnostic and Statistical Manual (DSM): A Reevaluation. 2005. Haworth Press, Binghamton, NY. (Book Co-Editor)
4. **Karasic DH.** Transgender and Gender Nonconforming Patients. In: Clinical Manual of Cultural Psychiatry, Second Edition. Lim RF ed. pp 397-410. American Psychiatric Publishing, Arlington VA. 2015.
5. **Karasic DH**. Mental Health Care of the Transgender Patient. In: Comprehensive Care of the Transgender Patient, Ferrando CA ed. pp. 8-11. Elsevier, 2019.
6. **Karasic DH.** The Mental Health Assessment for Surgery. In: Gender Confirmation Surgery – Principles and Techniques for an Emerging Field. Schechter L ed. Springer Nature, in press 2019.

OTHER PUBLICATIONS

1. **Karasic DH**, Dilley JW. HIV-associated psychiatric disorders: Treatment issues. In: Cohen P, Sande MA, Volberding P, eds., The AIDS Knowledge Base. Waltham, MA: The Medical Publishing Group/ Massachusetts Medical Society. 1994. pp. 5.31-1-5.
2. **Karasic DH**, Dilley JW. HIV-associated psychiatric disorders: Clinical syndromes and diagnosis. In: Cohen P, Sande MA, Volberding P, eds., The AIDS Knowledge Base, Second Edition. Waltham, MA: The Medical Publishing Group/Massachusetts Medical Society. 1994 pp. 5.30-1-5.
3. **Karasic DH.** A primer on transgender care. In: Gender and sexuality. The Carlat Report Psychiatry. April 2012. Vol 10, Issue 4.
4. **Karasic D and Ehrensaft D.** We must put an end to gender conversion therapy for kids. Wired. 7/6/15.

EXPERT WITNESS AND CONSULTATION ON TRANSGENDER CARE AND RIGHTS

2008 Consultant, California Department of State Hospitals

2012 Dugan v. Lake, Logan UT

2012 XY v. Ontario http://www.canlii.org/en/on/onhrt/doc/2012/2012hrto726/2012hrto726.html

2014 Cabading v California Baptist University

2014 CF v. Alberta
http://www.canlii.org/en/ab/abqb/doc/2014/2014abqb237/2014abqb237.html

2017 United Nations Development Programme consultant, transgender health care and legal rights in the Republic of Vietnam; Hanoi.

2017- Forsberg v Saskatchewan; Saskatchewan Human Rights v Saskatchewan
2018 https://canliiconnects.org/en/summaries/54130
https://canliiconnects.org/en/cases/2018skqb159

2018 United Nations Development Programme consultant, transgender legal rights in Southeast Asia; Bangkok.

2018 Consultant, California Department of State Hospitals

2019, 2021 Consultant/Expert, Disability Rights Washington

2019, 2021 Consultant/Expert, ACLU Washington

2021 Consultant, California Department of Corrections and Rehabilitation

2021 Expert, *Kadel v. Folwell*, 1:19-cv-00272 (M.D.N.C.).

2021 Expert, Drew Glass v. City of Forest Park - Case No. 1:20-cv-914 (Southern District Ohio)

2021-2022 Expert, Brandt et al v. Rutledge et al. 4:21-cv-00450 (E.D. Ark.)

Exhibit B

EXHIBIT B – DAN KARASIC BIBLIOGRAPHY

Allen, L. R., Watson, L. B., Egan, A. M., & Moser, C. N. (2019). Well-being and suicidality among transgender youth after gender-affirming hormones. *Clinical Practice in Pediatric Psychology, 7*(3), 302–311. https://doi.org/10.1037/cpp0000288.

Almazan, A. N., & Keuroghlian, A. S. (2021). Association Between Gender-Affirming Surgeries and Mental Health Outcomes. *JAMA surgery*, 156(7), 611–618. https://doi.org/10.1001/jamasurg.2021.0952.

American Academy of Child and Adolescent Psychiatry (2019). Statement Responding to Efforts to ban Evidence-Based Care for Transgender and Gender Diverse Youth, *available at* https://www.aacap.org/AACAP/Latest_News/AACAP_Statement_Responding_to_Efforts-to_ban_Evidence-Based_Care_for_Transgender_and_Gender_Diverse.aspx.

American Academy of Family Physicians (2020). Care for the Transgender and Nonbinary Patient, *available at* www.aafp.org/about/policies/all/transgender-nonbinary.html.

American Academy of Pediatrics (2018). Policy Statement: Ensuring Comprehensive Care and Support for Transgender and Gender Diverse Children and Adolescents, *available at* https://pediatrics.aappublications.org/content/142/4/e20182162.

American College of Obstetricians and Gynecologists (2021). Committee Opinion No. 823: Health Care for Transgender and Gender Diverse Individuals, *available at* https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2021/03/health-care-for-transgender-and-gender-diverse-individuals.

American Medical Association (2012). Letter to National Governor's Association , *available at* https://searchlf.ama-assn.org/letter/documentDownload?uri=%2Funstructured%2Fbinary%2Fletter%2FLETTERS%2F2021-4-26-Bill-McBride-opposing-anti-trans-bills-Final.pdf.

American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.

American Psychiatric Association (2018). Position Statement on Access to Care for Transgender and Gender Diverse Individuals, *available at* https://www.psychiatry.org/File%20Library/About-APA/Organization-Documents-Policies/Policies/Position-2018-Access-to-Care-for-Transgender-and-Gender-Diverse-Individuals.pdf.

American Psychological Association (2021). APA Resolution on Gender Identity Change Efforts, *available at* https://www.apa.org/about/policy/resolution-gender-identity-change-efforts.pdf.

American Psychological Association (2015). Guidelines for psychological practice with transgender and gender nonconforming people. *American Psychologist*, 70, 832-864

Bauer GR, Scheim AI, Pyne J, Travers R, Hammond R. Intervenable factors associated with suicide risk in transgender persons: a respondent driven sampling study in Ontario, Canada. BMC Public Health. 2015 Jun 2;15:525. doi: 10.1186/s12889-015-1867-2. PMID: 26032733; PMCID: PMC4450977.

Brik, T., Vrouenraets, L.J.J.J., de Vries, M.C. *et al.* (2020). Trajectories of Adolescents Treated with Gonadotropin-Releasing Hormone Analogues for Gender Dysphoria. *Arch Sex Behav* 49**,** 2611–2618, *available at* https://doi.org/10.1007/s10508-020-01660.

Bustos, V. P., Bustos, S. S., Mascaro, A., Del Corral, G., Forte, A. J., Ciudad, P., Kim, E. A., Langstein, H. N., & Manrique, O. J. (2021). Regret after Gender-affirmation Surgery: A Systematic Review and Meta-analysis of Prevalence. *Plastic and reconstructive surgery. Global open*, *9*(3), e3477, *available at* https://doi.org/10.1097/GOX.0000000000003477.

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First Amended Class Action Complaint, *Fain v. Crouch*, Case No. 3:20-cv-00740 (S.D.W.V.)

Health plan booklets for plans offered through the West Virginia Public Employees Insurance Agency and the West Virginia Bureau for Medicaid Services

Medical records of Plaintiffs Christopher Fain, Shauntae Anderson, and Leanne James

Exhibit 17

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
HUNTINGTON DIVISION

CHRISTOPHER FAIN, *et al.*, individually and on behalf of all others similarly situated, *Plaintiffs,* v. WILLIAM CROUCH, *et al.*, *Defendants.*	CIVIL ACTION NO. 3:20-cv-00740 HON. ROBERT C. CHAMBERS

EXPERT REBUTTAL REPORT OF DAN H. KARASIC, M.D.

1. I have been retained by counsel for plaintiffs as an expert in connection with the above-captioned litigation.

2. I previously submitted an expert witness report in this case ("Karasic Report"), which contains my background and credentials.

3. I have been asked by the Plaintiffs to respond to, rebut, and provide my expert opinion regarding the report by Dr. Stephen B. Levine ("Levine Report"). I do not address each and every assertion made in Dr. Levine's report that I believe to be baseless, misleading, or mischaracterizations of the scientific literature, as there are many. Instead, my aim is to provide an explanation of the erroneous premises upon which his conclusions are based.

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

5. I reserve the right to supplement my opinions, if necessary, as the case proceeds. An updated bibliography with sources considered in forming the opinions below is attached as Exhibit A.

GENDER DYSPHORIA AND ITS TREATMENT

6. I previously explained in my original report the diagnostic criteria treatment and treatment standards for transgender adolescents and adults. (Karasic Report, ¶¶ 23-26). Because Dr. Levine's report focuses heavily on his concerns about treatment of pre-pubertal children, I briefly review the relevant diagnostic and treatment protocols for children before responding to his report specifically.

7. "Gender Dysphoria in Children" is a diagnosis applied only to pre-pubertal children, in the Diagnostic and Statistical Manual Fifth Edition (DSM-5), released in 2013. The criteria include "A: A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months' duration." The diagnosis also requires the presence of criterion A1, which is "A strong desire to be of the other gender or insistence that one is the other gender (or some alternative gender different from one's assigned gender." The prior version of the diagnosis, Gender Identity Disorder of Children, in DSM IV, did not require this A1 criterion of gender identity, and could be applied solely on the basis of gender atypical behavior. Most research on persistence and desistance of gender identity in pre-pubertal children was conducted in the era of DSM-IV and earlier versions, and applied a broader diagnosis that could be based only on gender atypical behavior alone, without necessarily a transgender identity.

8. No medical or surgical treatment for gender dysphoria is provided to pre-pubertal children. Adolescents may be treated with medications to delay the onset of puberty, which are also used in children without gender dysphoria, but with early onset of puberty. After ongoing

work with mental health professionals, adolescents may start treatment with hormones. Adults may start hormones after work with a therapist, or after assessment by a primary care provider or endocrinologist.

9. Mental health professionals, primary care providers, endocrinologists, and surgeons often work collaboratively, whether in multidisciplinary teams, or with communication between individual professional practices.

10. Affirming care for transgender children does not mean steering children in any particular direction, but rather supporting them through their period of exploration of gender expression and increasing self-awareness of their identity (Coleman, et al., 2012). For prepubescent children, no medical or surgical intervention is involved. Instead, interventions are directed at supporting the child with family, peers, and school.

11. Puberty blockers may be indicated at Tanner Stage 2 of puberty if the onset of physical changes of puberty is causing distress. Puberty blockers allow the child time to better understand their gender identity under the care of a mental health professional, while delaying distress from the progression of the development of secondary sex characteristics. These treatments are reversible, and if stopped the youth will undergo a normal puberty.

12. It is not until later in adolescence, when the adolescent and parents—in consultation with mental health professionals and pediatricians—have had time to ensure that change in gender identity is unlikely, that the adolescent may start cross-sex hormones, with the consent of parents and agreement of mental health and medical professionals.

13. Given that prior longitudinal studies included gender nonconforming children who were not transgender due to the broad criteria for the since-abandoned "gender identity disorder in children" diagnosis, these studies shed little light into questions of persistence and desistance of

gender dysphoria in pre-pubertal children. However, longitudinal studies show that gender dysphoria in adolescence usually persists (DeVries, et al., 2011). Additionally, no medical treatment, let alone irreversible medical and surgical interventions, is used prior to puberty, so the persistence and desistance statistics of pre-pubertal children do not inform the decision whether or not to initiate these treatments.

14. Data from the Dutch experience with evaluation and care by a multidisciplinary team, using puberty blockers, followed by hormones and surgery when indicated, show that this approach appears to result in high satisfaction, a lack of regret, and mental health outcomes similar to those of a control group that was not transgender. (DeVries, et al., 2014).

15. In an American prospective study of 104 transgender and nonbinary youth, treatment with puberty blockers or hormones was associated with 60% less moderate to severe depression and 73% less suicidal ideation over 12 months, compared to youth not treated. (Tordoff, et al. 2022).

16. In another United States study, treatment with gender affirming hormones in transgender youth was associated with a substantial reduction in body dissatisfaction, as well as improvement on mental health measures (Kuper, et al., 2020).

17. Denial of this appropriate care for transgender youth is also opposed by mainstream organizations responsible for the care of youth, including the American Academy of Pediatrics, the Academy of Child and Adolescent Psychiatry, and the Pediatric Endocrine Society.

18. Parental support and other social support have been associated with dramatically less suicidal ideation in transgender people, as has treatment with hormones and completing medical transition. (Bauer, et al., 2015). Provision of puberty blockers for transgender youth likewise decreases suicidality (Turban, et al., 2020). The American Academy of Child and

Adolescent Psychiatry states, "Research consistently demonstrates that gender diverse youth who are supported to live and/or explore the gender role that is consistent with their gender identity have better mental health outcomes than those who are not." (AACAP, 2019).

19. Dr. Levine speculates that puberty-delaying treatment may lead to a series of negative health effects, in Section C of his report beginning at page 58. While other experts in this matter will respond to several of those arguments, I explain here why his claims about "psychosocial effects" and mental health issues are unfounded. Dr. Levine relies heavily on his own published opinion pieces, rather than on research to support his views. Dr. Levine does cite a paper on increased mental health symptoms in transgender youth compared to the general population. (Levine Report, ¶ 144; citing Reisner 2015), but that is not surprising given the ongoing stigma and discrimination that transgender people face, and Dr. Levine's speculation about psychological harms of puberty blockers are unfounded. In fact, the use of puberty blockers has been associated with a substantial decrease in depression and suicidal ideation, when compared to those untreated (Tordoff, et al 2022).

20. Dr. Levine grossly misrepresents the process of assessment before medical and surgical interventions for transgender adolescents. Dr. Levine states, "Yet according to WPATH, perfunctory mental health assessments, which the draft SOC 8 describe as 'brief assessment process," are sufficient to approve [medical and surgical interventions]." (Levine Report, ¶ 149). This is a fabrication by Dr. Levine, as the actual text of the SOC 8 Adolescent chapter draft says the opposite. The draft states that a "comprehensive assessment" is necessary. The SOC 8 draft describes the components of the comprehensive assessment in detail, and advises against more perfunctory assessments. Dr. Levine cites an anti-WPATH group's editorial about SOC 8, rather

than the SOC 8 draft itself (Levine Report, ¶ 149 n.221), to draw conclusions that are diametrically opposed to what is stated in the SOC 8 Adolescent draft.

DR. LEVINE'S VIEWS ARE OUTSIDE THE MAINSTREAM

21. Dr. Levine's views as described in his report are outside the mainstream of experts in transgender health and mainstream medical organizations.

22. Dr. Levine was an editor of Standards of Care 5 ("SOC 5") of the Harry Benjamin Gender Dysphoria Association (the precursor to The World Professional Association of Transgender Health, "WPATH"), which were released in 1998. After widespread criticism of the SOC 5, it was replaced by the SOC 6 in just three years. By contrast, the SOC 6 (published in 2001) and SOC 7 (published in 2012) have each been used for approximately 10 years. Dr. Levine was critical of the changes in transgender care since 1998, and has been a critic of modern transgender care since. His involvement in transgender health in recent years has centered on the denial of care to transgender people. Dr. Levine's bias and misrepresentations were noted in *Norsworthy v. Beard*, in which U.S. District Judge Jon Tigar stated: "The Court gives very little weight to the opinions of Levine, whose report misrepresents the Standards of Care; overwhelmingly relies on generalizations about gender dysphoric prisoners, rather than an individualized assessment of Norsworthy; contains illogical inferences; and admittedly includes references to a fabricated anecdote."

23. Dr. Levine uses his prior experience with WPATH—over two decades ago—to burnish his credentials as an expert in transgender health, but otherwise dismisses WPATH as an "activist," rather than a professional, organization. Many WPATH members are academics who publish in peer-reviewed journals. Many are academic leaders in endocrinology, internal medicine, plastic surgery, urology, psychiatry, psychology, and other disciplines of the health

sciences. WPATH restricts its full membership to those with professional credentials and most members are licensed clinicians. The fact that WPATH engages in advocacy on behalf of its patient population for access to beneficial care is typical of medical associations. For example, the American Psychiatric Association advocates for a wide range of public policy changes to improve access to mental health care, e.g., for migrants and for incarcerated people.[1]

24. Dr. Levine argues that dissenting views are not tolerated by myself and, in WPATH. (Levine Report, ¶ 69). I have attended several WPATH conferences since 2001, and have been a member of the Scientific Committees that have reviewed abstract submissions for the conferences, and the diversity of views presented and discussed have always been notable.

25. Dr. Levine's bias leads him to propound at length his own theories of etiology and treatment of gender dysphoria (which are unsupported by scientific peer-reviewed literature), while dismissing the approaches of modern mainstream medicine and pediatrics, as put forward in academic journals like The Lancet, the American Journal of Psychiatry, the Journal of the American Medical Association, and the New England Journal of Medicine, as well as by organizations including the American Medical Association, the American Psychiatric Association, the American Academy of Pediatrics, and the American Psychological Association. Dr. Levine's theories should be understood in the context of his own confirmation bias since, as described

[1] *See* American Psychiatric Association. (2019). Position Statement on the Care of Medically Vulnerable Migrants in the United States. *Available at* https://www.psychiatry.org/File%20Library/About-APA/Organization-Documents-Policies/Policies/Position-Care-of-Medically-Vulnerable-Migrants-in-the-US.pdf; American Psychiatric Association. (2016). Position Statement on Treatment of Substance Use Disorders in the Criminal Justice System. *Available at* https://www.psychiatry.org/File%20Library/About-APA/Organization-Documents-Policies/Policies/Position-2016-Substance-Use-Disorders-in-the-Criminal-Justice-System.pdf; *see generally* American Psychiatric Association Policy Finder, *available at* https://www.psychiatry.org/home/policy-finder.

below, he misinterprets the literature he cites and disregards the body of literature that contradicts his views.

26. Dr. Levine points to elevated rates of mental health problems in the transgender community, suggesting that being transgender is the cause of these negative outcomes and, thus, something doctors should try to prevent. (Levine Report, ¶¶ 34, 35). But being transgender is not something doctors can prevent. And these comments disregard the significant stigma transgender people continue to face, and stigma is a well-documented risk factor for mental health and substance use issues.

DR. LEVINE'S ATTEMPTS TO DISCREDIT WPATH AND THE STANDARDS OF CARE ARE BASELESS

27. Dr. Levine makes a number of inaccurate assertions regarding the widely accepted standards of care for treatment of gender dysphoria, as set forth in the WPATH SOC. Contrary to Dr. Levine's claims and as discussed in my initial report, the WPATH SOC "are endorsed and cited as *authoritative* by many professional medical associations including the American Medical Association, the American Academy of Pediatrics, the American Psychiatric Association, the American Psychological Association, the Endocrine Society, the Pediatric Endocrine Society, the American College of Obstetrics and Gynecology, the American College of Physicians, and the World Medical Association, among others." (Karasic Report, ¶ 25).

28. Dr. Levine creates a straw man by providing a false description of care under the WPATH Standards of Care and then attacks it. He either misunderstands the prevailing protocols or assumes, without basis, that all or most providers disregard them. As a clinician who, unlike Dr. Levine, actively works with a multitude of clinicians providing care to transgender youth and

adults, I know firsthand that his characterization of treatment and care for transgender people is wholly inconsistent with the prevailing practice.

29. Dr. Levine erroneously states that a patient's diagnosis of gender dysphoria is "self-generated" and "merely recorded" by the provider. (Levine Report, ¶ 9). This is incorrect. The critical element of the gender dysphoria diagnosis is the presence of symptoms that meet the threshold for clinical impairment or distress. The diagnosis of gender dysphoria is codified in the DSM-5, which is published by the American Psychiatric Association, with attendant criteria. Psychiatrists and psychologists have many years of training to make diagnoses, which are made primary by clinical interview with the patient. This process is similar to that of diagnosing other DSM diagnoses, to determine treatment for other disorders. The process of taking a history of symptoms from a patient is not only used to determine most psychiatric treatment, but also many medical and pediatric treatments. Clinicians do not simply defer to the reported experiences of the patient, but instead use application of professional experience and expertise to assess whether the patient meets the relevant diagnostic criteria. It is surprising to hear any medical professional dismiss the importance of taking a good history from a patient. Even medical disorders that rely on blood tests and imaging for a definitive diagnosis rely first on taking a history to know which tests to order.

30. Dr. Levine also claims that WPATH has "downgraded the role of counseling or psychotherapy as a requirement" for gender-affirming care, and that there is "a crisis of inadequate or absent mental health assessments prior to" transition. (Levine Report, ¶ 75; page 67(D)). There is no requirement for psychotherapy before gender-affirming care because it may not be necessary for the patient, and requiring unnecessary care does not serve a therapeutic goal in medicine.

Rather than being a "downgrade," this allows the flexibility for the provision of the best care to each individual.

31. Dr. Levine also attempts to suggest that the clinicians who help develop the SOC have a financial conflict of interest because they also work in the field. (Levine Report, ¶ 77). To clarify, those writing WPATH Standards of Care are not paid for their efforts. Additionally, clinical practice guidelines are written by those with expertise and experience in the field, and even Dr. Levine acknowledges that "clinicians" in the field should be involved. (Levine Report, ¶ 77). For example, clinical practice guidelines for psychiatrists working with people with eating disorders were written by psychiatrists who work in that field. It would make no sense for clinical practice guidelines for the care of transgender people to be written by those without experience doing that work. (American Psychiatric Association, 2006).

32. Dr. Levine also invokes a distinction between the diagnosis in the DSM-5, which requires either "clinically significant distress or impairment in social, occupational, or other important areas of functioning," while the World Health Organization's International Classification of Diseases, 11th Revision ("ICD 11") refers to "gender incongruence." (Levine Report, ¶ 86). The U.S. currently uses ICD-10-CM, the clinical modification of ICD-10 by the Centers for Medicaid & Medicare Services, for medical claim reporting. The ICD-10-CM diagnosis is linked to the Gender Dysphoria diagnosis in DSM-5. ICD-11 is being implemented in other parts of the world but is not expected to be implemented in the U.S. for several years.

33. Dr. Levine is incorrect when he states that the diagnosis is based on a "highly personal feeling" of incongruence "not subject to objective medical criteria." (Levine Report, ¶ 86). As explained in both my original report and this report above, the diagnosis is performed by measuring the patient's symptoms according to well-defined diagnostic criteria in the DSM-5.

While Dr. Levine invokes these arguments to claim that treatment for gender dysphoria cannot meet the definition of medically necessary care in the Medicaid program and state employee health plans (Levine Report, ¶ 85; *id.* at n.124), I have examined those definitions (which are typical of medical necessity definitions in many plans I have seen), and gender dysphoria satisfies those definitions.

34. Dr. Levine points to comments by Drs. Laura Edwards-Leeper and Erica Anderson claiming that patients are being "rushed" into treatment, and comments by WPATH President-Elect Dr. Marci Bowers discussing the role of dissent within WPATH. (Levine Report, ¶¶ 23, 146). But these doctors' comments were aimed at improving care, not banning it. After making the comments cited by Dr. Levine, Dr. Bowers and Dr. Anderson were signatories to a letter from USPATH and WPATH supporting gender-affirming medical care for adolescents with gender dysphoria and opposing legislation aimed at banning care for transgender adolescents.[2] And Dr. Edwards-Leeper and Dr. Anderson similarly expressed their full support for gender-affirming care and "disgust" at legislative bans of such care.[3] Ultimately, if there are individual doctors who deviate from the accepted protocols and inappropriately provide care that is harmful to patients, medical licensing boards can address that without denying care to those who have been appropriately assessed and determined to need it.

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[2] United States Professional Association for Transgender Health and World Professional Association for Transgender Health. (2021). Joint Letter from USPATH and WPATH. *Available at* https://www.wpath.org/media/cms/Documents/Public%20Policies/2021/Joint%20WPATH%20USPATH%20Letter%20Dated%20Oct%2012%202021.pdf; *see also* World Professional Association for Transgender Health. WPATH Public Documents. *Available at* https://www.wpath.org/policies.

[3] Laura Edwards-Leeper and Erica Anderson, the Mental Health Establishment is Failing Trans Kids, Washington Post, Nov. 24, 2021, *available at* https://www.washingtonpost.com/outlook/2021/11/24/trans-kids-therapy-psychologist/.

35. Dr. Levine cites my evaluations of the Plaintiffs in this case as an example of the supposed downgrading of mental health assessments under the Standards of Care. (Levine Report, ¶ 75). But clinical interviews with patients are typically used to diagnose other DSM diagnoses and determine treatment. This widely used assessment tool is not unique to gender dysphoria. Clinical interviews also are frequently conducted via telehealth platforms and recognized by the Standards of Care as an appropriate communication mode for a variety of reasons, including as part of a response to the global pandemic.

36. Dr. Levine asserts "[i]n my experience most current members of WPATH have little ongoing experience with the mentally ill." (Levine Report, ¶ 74). I do not know what he is basing this on since he has not been involved with WPATH in two decades. But it is simply not true. I have been involved with WPATH for many years and have 35 years of experience treating people with mental illnesses. And there are many others like me in WPATH. Mental health providers make up the largest percentage of WPATH's membership. These mental health professionals are licensed and regulated by state licensing boards, and most provide care to both cisgender and transgender clients—including those with serious mental illness. Having been actively involved for three decades as a UCSF professor in the training of psychiatry residents, internal medicine residents and fellows, and medical students, as well as of mental health and medical professionals at conferences around the nation, by my observation, the mainstream views of health professionals on transgender care include widespread acceptance of the WPATH Standards of Care.

37. As a clinician who, unlike Dr. Levine, actively works with a multitude of clinicians providing care to transgender youth and adults, I am acutely aware of the dedicated professionals who provide care to transgender people, like the care they provide to others, undertaking serious

endeavor in trying to provide the best care for their patients according to prevailing standards of care, not the pushing of a political agenda.

GENDER-AFFIRMING MEDICAL CARE CAN HAVE LONG-TERM BENEFITS FOR PATIENTS

38. Dr. Levine claims that there is "no convincing evidence" that gender-affirming care results in "lasting improvements" to health and well-being. (Levine Report, ¶ 95). This is incorrect. Dr. Levine may not be convinced, but evidence of benefit has been presented. One large meta-analysis and listing of studies categorized into whether or not the study shows benefits is Cornell University's "What We Know series, What does the scholarly research say about the effect of gender transition on transgender well-being?" which lists 51 studies published between 1991 and 2017 that have shown benefits from gender-affirming care. *See* https://whatweknow.inequality.cornell.edu/topics/lgbt-equality/what-does-the-scholarly-research-say-about-the-well-being-of-transgender-people/ (finding "a robust international consensus in the peer-reviewed literature that gender transition, including medical treatments such as hormone therapy and surgeries, improves the overall well-being of transgender individuals").

39. Dr. Levine's claims also are inconsistent with my own decades-long clinical experience. I have treated people ranging from adolescents to the elderly. Many of my patients have remained with me for decades, e.g., where a patient is on medications that need to be monitored, and their medical transition was a positive health care decision not just in the short term but for the course of their lives.

40. Dr. Levine's assertions based on anecdotal evidence that "regret" and "detransition" are starting to mount (Levine Report, ¶¶ 38, et seq.) is inconsistent with the data. A study of everyone receiving gender-affirming surgery in Sweden over 50 years (1960 to 2010)

found a regret rate of 2.2%, declining over the years. There were ten cases of regret from 1960 to 1980, and only five cases of regret total in the last 30 years that were reviewed, from 1981-2010. (Dhejne, et al., 2014). A meta-analysis of 27 studies which reported regret after gender-affirming surgery found that of 7928 people having gender-affirming surgery, the regret rate was 1%. (Bustos, et al., 2021). Dr. Levine dismisses this study, but one that he cites (Wiepjes, et al 2018) showed even lower regret rates—0.3%-0.6%. These regret rates are very low, especially in comparison to rates of regret for a number of surgical procedures that cisgender people undergo. For example, one study of women who had mastectomy for breast cancer, followed by breast reconstructive surgery, reported a 47% regret rate for having breast reconstruction (Sheehan, et al., 2008).

41. Dr. Levine's assertion is also at odds with my clinical experience. I have had some patients who halted their transition due to challenging personal circumstances—e.g., fear of losing family support—but they still had gender dysphoria. And some came back years later to resume their transition. But in 30 years, I have never seen a patient who had undergone hormone therapy and/or surgery and later came to identify with their sex assigned at birth and, thus, regretted the treatment and wanted to undo its effects.

42. Dr. Levine's assertions that successful transition for transgender individuals "is not biologically attainable" (Levine Report, ¶ 18) due to lack of reproductive capacity are untrue. Some transgender individuals retain reproductive capacity and have children. Transgender individuals may find other ways to build families, but so do other individuals who need medical assistance with reproduction or choose to adopt. Reproductive capacity is not what makes a person a man or a woman, and we do not describe others as less of a man or woman for needing assistance with family building or choosing not to raise children.

43. Apparently in support of the unattainable goal of trying to deter people from being transgender, Dr. Levine makes the wholly unsupported statement that transgender people are not attractive, are unable to form lasting relationships and attract sexual-romantic partners, are not loved by others, and do not have friends because people will not be comfortable interacting with them. (Levine Report, ¶¶ 140, 141, 142). That may be his own view of transgender people, but it is not at all consistent with clinical experience, including my own. Many transgender people, when appropriately treated, lead fulfilling lives, forming romantic relationships and having families, and having close relationships with friends and extended family.

DR. LEVINE'S MISREPRESENTATION OF THE SCIENTIFIC LITERATURE

44. Dr. Levine misrepresents the scientific literature regarding treatment for transgender people in at least three ways. First, he makes assertions that run contrary to a large body of literature, much of which he ignores. For example, Dr. Levine states that mainstream transgender care, including gender confirming surgery, lacks a "long-term demonstrated efficacy, and points to a growing risk of harm and regret." (Levine Report, ¶ 15). In fact, transgender care, including gender confirming surgery, has been studied extensively, with much evidence of the effectiveness of such treatment, and of low regret rates. (Cornell "What We Know" systematic review; see also, e.g., Almazan and Keuroghlian, 2021; Colton-Meier, et al., 2011; Murad, et al., 2010; Smith, et al., 2005; Pfafflin & Junge, 1998).

45. Second, Dr. Levine cites a number of unscientific sources to support his opinions, including for example The Federalist, a conservative online magazine; a piece labeled "Opinion" in Newsweek; https://genderreport.ca, a non-scientific Canadian website; and pieces simply posted on a website, https://segm.org/.

46. Third, Dr. Levine mischaracterizes a number of the sources he cites. Dr. Levine discusses research by Cecelia Dhejne (2011) regarding suicidality in transgender people. These numbers were based on a total of 10 transgender people in 30 years (1973-2003) who committed suicide, versus 5 suicides in a control group of cisgender people. From 1987-2003, there was no statistically significant difference in suicide risk between transgender people and cisgender controls. The study was not designed to compare people who had gender affirming care with those who had not, and therefore no conclusions can be drawn from that study about the efficacy of gender-affirming care. (Levine Report, ¶ 109). In fact, the peer reviewed literature does show a reduction in suicidality after access to gender-affirming care (Almazan and Keuroghlian 2021; Tordoff et al. 2022) .

47. As an additional example, Dr. Levine critiques an article cited in my original report, de Vries et al. (2014), suggesting that the study showed poor health outcomes for four participants. (Levine Report, ¶ 39). Once again, Dr. Levine misrepresents the literature. One patient died from post-surgical necrotizing fasciitis, a bacterial infection that can be a side effect of any surgery. Dr. Levine falsely suggests that three patients developed obesity and diabetes due to hormone therapy (*id.*), but the study only states that three study participants were ineligible for surgery due to those conditions, and does not report them as side effects of the hormone therapy (de Vries et al. 2014).

48. Levine also cites C.M. Wiepjes, et al. (2020) in paragraph 110 n.174 of his report for the proposition that rates of suicide are similar across all stages of transition. But while this Dutch study shows a higher suicide rate in transgender patients of the clinic than in the *general* population, it also showed a *decrease* in the suicide rate for transgender women over time, and made no assertions of the effect of treatment on suicide risk. Finally, Dr. Levine invokes Bränström and Panchankis as "the most conclusive results" regarding the effects of gender

affirming care. (Levine Report, ¶ 111 et seq.). His argument appears to be that because a correction was issued as to some findings in the paper, this should be understood as casting doubt on the efficacy of this care writ large. But there is a broad body of scientific literature establishing the health benefits of access to gender-confirming care, and Dr. Levine's focus on this particular article does not affect the breadth of the larger literature establishing that this care is safe and effective.

49. Dr. Levine also claims that the Endocrine Society "implores researchers to not conflate biological sex … with the concept of gender identity." (Levine Report, ¶ 17 (citing Bhargava A., et al.)). This both misunderstands the nature of my original testimony, which is that all people have a collection of sex-related characteristics; and misconstrues Bhargava, which expressly points readers to the Endocrine Society guidelines for treatment of transgender people. As I previously explained (Karasic Report, ¶ 20), those guidelines expressed caution against the use of the term "biological sex" as imprecise. (Hembree, et al., 2017).

50. As another example, Dr. Levine attempts to undermine the WPATH Standards of Care by invoking a decision of the U.S. Department of Health and Human Services involving an exclusion of coverage for gender-affirming care. (Levine Report, ¶ 24). He neglects to mention this decision was issued as part of the agency's determination that it should *remove* the exclusion on coverage for gender-affirming care. Dep't of Health and Human Servs., Departmental Appeals Board, Appellate Div., NCD 140.3, Transsexual Surgery (2014).

51. Dr. Levine claims that I prefer to rely upon "systematic reviews of evidence commissioned and paid for by WPATH." (Levine Report, ¶ 28). Other than the WPATH Standards of Care and WPATH Position Statements, which are organized and released by WPATH, none of my citations of scientific evidence on the benefits of transgender care are

"commissioned and paid for by WPATH." The studies cited are the result of independent research that is submitted to scientific journals and subjected to peer review before publication.

52. Dr. Levine's assertions that the evidence base for treatment of gender dysphoria is of "very low quality and unfit tool for clinical decision-making." But this ignores that the quality of the evidence base for gender-affirming care is well in line with a variety of other conditions that are routinely treated. Even the source he cites, Dahlen, et al. 2021, acknowledges that "finding poor quality [clinical practice guidelines] is not confined to this area of healthcare."

53. Dr. Levine mentions ratings of quality of evidence for transgender care, including randomized control trials. (Levine Report, ¶ 96). Randomized, controlled, blinded trials of whether a child or adult is allowed to transition are not possible. Often evidence is derived from lesser-graded evidence, not only for transgender care, but for many treatments for which randomized, controlled, blinded trials are not possible.

DR. LEVINE'S DESCRIPTION OF GENDER-AFFIRMING CARE FOR ADOLESCENTS WITH GENDER DYSPHORIA BEARS NO RESEMBLANCE TO THE PREVAILING TREATMENT PROTOCOLS

54. Dr. Levine offers a description of medical care for adolescents with gender dysphoria that bears no resemblance to the widely accepted protocols for treatment articulated in the WPATH Standards of Care 7 ("WPATH SOC") and the Endocrine Society Guideline. Throughout his report, Dr. Levine claims that doctors who provide medical interventions to treat gender dysphoria "are expected to accept a patient's self-diagnosis of gender dysphoria," rush to provide medical interventions without psychiatric assessments of patients, disregard other mental health and family issues that could be causing the patient distress, oppose psychotherapy, and fail to inform patients and their families of the risks associated with treatment. (*See, e.g.*, Levine, ¶ 148).

55. Dr. Levine suggests that this is not just an accepted mode of treatment, but "expected"—but the model he describes is completely at odds with the protocols provided in the WPATH SOC and the Endocrine Society Guideline:

- The protocols provide that before any medical or surgical interventions are provided to adolescents, a careful mental health assessment should be conducted to ascertain whether the diagnostic criteria for Gender Dysphoria in Adolescents and Adults are met and the appropriateness of such care for the patient. (Coleman, et al., 2012, at 18; Hembree, et al., 2017, at 3877).
- The protocols provide for the mental health assessment to evaluate other issues that may be causing the patient distress. (Coleman, et al., 2012, at 18 ("Before any physical interventions are considered for adolescents, extensive exploration of psychological, family, and social issues should be undertaken."); Hembree, et al., 2017, at 3876 (clinicians must be able to diagnose psychiatric conditions)).
- The protocols provide that clinicians should ensure that any psychiatric conditions are appropriately treated and that it is important that mental health care is available to patients before, during, and sometimes after transitioning. (Hembree, et al., 2017, at 3876, 3879.)
- The protocols provide for a rigorous informed consent process that includes informing the patient and their parents of side effects of treatment, including the potential loss of fertility. For hormone therapy, in addition to requiring the parents' informed consent, the adolescent must have "sufficient mental capacity . . . to estimate the consequences of this (partly) irreversible treatment, weigh the benefits and risks, and give informed consent." (Hembree, et al., 2017, at 3878.)

56. As described above, under the WPATH SOC and Endocrine Society Guideline, affirming care for transgender youth does not mean steering them in any particular direction, but rather supporting them through their period of exploration of gender expression and increasing self-awareness of their identity. (Coleman, et al., 2012, at 18; Ehrensaft, 2017). The WPATH SOC 7 makes clear that "[h]ormonal or surgical interventions are appropriate for some adolescents, but not for others." (Coleman, et al., 2012, at 16).

57. There is no basis for Dr. Levine's suggestion that providing gender-affirming medical care will cause youth with gender dysphoria who would otherwise desist to, instead, persist. (*See, e.g.*, Levine, ¶¶ 139, 154). This claim erroneously relies on the assertion that social transition in prepubertal children can cause their gender dysphoria to persist into adolescence. First, contrary to Dr. Levine's suggestion, the fact that there is a correlation between social transition prior to puberty and persistence does not establish that social transition causes persistence of gender dysphoria. A recently published study, which Dr. Levine fails to cite, has found this not to be true. The study authors found that gender identification did not meaningfully differ before and after social transition. (Rae, et al., 2019). As a Steensma study reported (*see* Steensma, 2013), the intensity of gender dysphoria prior to puberty predicted persistence, and children with more intense dysphoria were more likely to socially transition. Second, whatever conclusions can be drawn from these desistance studies about the impact of gender affirmation on the persistence rates in prepubertal children, as discussed above, this research does not apply to adolescents with gender dysphoria, for whom desistance is rare.

58. In addition, Dr. Levine's criticism, particularly with regard to desistance, relies heavily on studies relying on the now obsolete and overly broad categorizations contained in the DSM III-R and DSM IV for "Gender Identity Disorder in Children." Importantly, one could meet

criteria for the DSM III-R or DSM-IV diagnosis of gender identity disorder without identifying as transgender because the diagnostic criteria did not require identification with a gender other than the one assigned to the person at birth. This problem with the diagnosis was remedied with the new DSM-5 diagnosis of "gender dysphoria in children," which requires a child to have "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)." It is therefore not surprising that the children discussed in the studies cited by Dr. Levine did not identify as transgender at follow-up as these children did not necessarily identify as transgender to begin with.

59. Dr. Levine cites a survey by Lisa Littman of participants on discussion websites for parents who opposed their children's gender transition and derived a theory that adolescents develop "rapid onset gender dysphoria" via "social contagion." This survey has been contradicted by the World Professional Association for Transgender Health. The survey was of parents' perception after learning of their children's transgender identity, rather than of the children themselves, and conflicts with the experience of those who work with the children themselves. No conclusions can be drawn from the Littman survey other than the fact that some anonymous people recruited from internet sites who opposed transition care for youth speculate that transgender identity is due to social contagion. This speculation from anonymous people online does not constitute a reliable source, and does not establish a true phenomenon. No study to date has demonstrated that the determinant of gender identity is psychosocial. Moreover, the diagnostic criteria for gender dysphoria are rigorous and if there were individuals claiming a transgender identity to fit into a peer group, they would not meet the criteria for a gender dysphoria diagnosis let alone be deemed to need medical interventions.

60. Furthermore, noting the serious flaws with the Littman survey, a correction to the article was later published, which noted that, "Rapid-onset gender dysphoria (ROGD) is not a formal mental health diagnosis at this time" and that the "report did not collect data from the adolescents and young adults (AYAs) or clinicians and therefore does not validate the phenomenon." The correction goes on to say that "the term should not be used in any way to imply that it explains the experiences of all gender dysphoric youth."[4]

DR. LEVINE OFFERS NO ALTERNATIVE EFFECTIVE TREATMENT FOR PEOPLE WITH GENDER DYSPHORIA

61. Dr. Levine disapproves of existing protocols for treating gender dysphoria, but the alternative treatments he proposes lack any evidence of effectiveness.

62. Dr. Levine claims there is evidence that psychotherapy can sometimes enable a return to a gender identity that matches sex assigned at birth but offers nothing but anecdotes of "reinvestment" in one's sex assigned at birth. (Levine Report, ¶ 88 ("I and other clinicians have witnessed reinvestment in the patient's biological sex in some individual patients following a period of time.")). Efforts were made in the past to assist patients to come to identify with their sex assigned at birth but those efforts have proven to be ineffective and harmful and, thus, treatment with the goal of changing a person's gender identity is no longer considered ethical. (Coleman, et al., 2012, at 16; American Psychological Association, 2021).

[4] Dr. Levine states that I attempted to "suppress the presentation of a key research paper at a scientific conference." (Levine Report, ¶ 58). This is simply incorrect. Dr. Levine is referring to the conference abstract by Littman published by the Journal of Adolescent Health in 2017. The poster was accepted for a conference sponsored by the Society for Adolescent Health and Medicine. I was not involved in this conference or organization, and had no awareness of the abstract, the conference, or the organization that held the conference until after the conference, and certainly made no effort to suppress its presentation at the conference.

63. But even Dr. Levine admits that there is no scientific support for his preferred method of withholding care from transgender youth. (Levine Report, ¶ 37 ("It is true that quality evidence proving long-term effectiveness of psychotherapy interventions [alone] is missing")). While psychotherapy can provide support with issues that arise in tandem with gender dysphoria, this approach alone is not a substitute for medical interventions where medically indicated for a particular patient.

64. Dr. Levine points to "gender-psychotherapy" and "watchful waiting" as alternative treatment approaches to the existing treatment paradigms outlined in the WPATH SOC and the Endocrine Society Guideline. (Levine Report, ¶ 160). While "watchful waiting" is an approach for prepubertal children followed by some clinicians, it is not an accepted approach used with adolescents. That is because, while there are studies finding that many prepubertal children diagnosed with Gender Identity Disorder (a precursor diagnosis to Gender Dysphoria in Children) identified with their sex assigned at birth at a later follow up, there is no evidence that gender dysphoria that continues into adolescence is likely to desist. To the contrary, all of the research on this topic makes clear that desistance is a prepubertal phenomenon. (*See, e.g.*, Steensma, 2011). Dr. Levine himself admits that his advocacy for watchful waiting is unsupported by scientific evidence. (Levine, ¶ 160 ("The results of alternative approaches, such as watchful waiting for children, or gender-psychotherapy, are likewise lacking in long-term evidence.")).

65. Dr. Levine relies significantly on the work of Kenneth Zucker in support of "watchful waiting." (*See, e.g.*, Levine, ¶ 90). But Zucker recognizes the need for medical interventions for gender dysphoria in adolescence and does not suggest that watchful waiting is appropriate for adolescents. (Zucker, et al., 2010). His clinic in Toronto provided puberty blockers and hormone therapy to adolescents with gender dysphoria. (Zucker, et al., 2010). Similarly, the

Dutch researchers who coined the term watchful waiting for prepubertal children did the seminal research on medical interventions for those patients whose gender dysphoria persists until adolescence and found that puberty blockers, hormones, and later surgery successfully treated gender dysphoria in the same youth once they were of developmental stage for those treatments. (de Vries, 2011; Steensma, 2011; de Vries, 2014). The result was that mental health outcomes significantly improved in the youth who received transition care in the study. *Id.* Other studies have also shown improvement in mental health measures in trans youth with gender- affirming medical treatment. (van der Miesen, et al., 2020; Kuper, et al., 2020). It is important to emphasize that in the Dutch research, the youth who were going to desist from the gender identity disorder diagnosis were not treated with medications and surgery, and desistance occurred before puberty. The youth whose gender dysphoria persisted to puberty, and who were therefore treated, did not have a reversion to the gender identity congruent with sex assigned at birth, nor did any research participants who transitioned experience regret at doing so.

66. Dr. Levine admits that "alternative approaches" to gender affirming care lack evidence but then states "psychotherapy is a promising intervention for young people." (Levine Report, ¶ 160). Some young people, transgender or not, benefit from psychotherapy, which is not a new treatment for those in distress. However, this therapy does not change gender identity, and is not a substitute for gender-affirming medical and surgical care in those where such interventions are medically indicated. Dr. Levine appears to endorse psychotherapy for the purpose of attempting to persuade transgender youth that they are not transgender. Gender identity change efforts, or conversion therapy, have been rejected by major mental health organizations as harmful and unethical, including the American Psychological Association and the American Psychiatric Association.

67. Dr. Levine asserts that a number of countries "have either stopped or sharply curtailed" gender-affirming care. (Levine, ¶ 102). But none of the countries he discussed—U.K., Finland, or Sweden—has banned care. Sweden, in response to the Bell v. Tavistock court decision in the U.K. (since overruled), made a decision to stop initiating gender-affirming medical interventions to minors outside of the context of research protocols, but to continue to provide care to existing patients. In none of these countries has a law banning transition care to minors been enacted and in none of these countries is gender-affirming care for minors unavailable.

68. The suggestion that adolescents can just wait until they are 18 years old to get care ignores the harm of not providing the care. Allowing endogenous puberty to advance is not a neutral decision. For many adolescents, the development of secondary sex characteristics that do not match their gender identity can have a severe negative impact on their mental health and can exacerbate lifelong dysphoria because some of those characteristics are impossible to change later through surgeries.

69. As I explained in my original report, the overarching goal of treatment is to eliminate the distress of gender dysphoria by aligning an individual patient's body and presentation with their internal sense of self. The denial of medically indicated care to transgender people not only results in the prolonging of their gender dysphoria, but causes additional distress and poses other health risks, such as depression, posttraumatic stress disorder, and suicidality. The prevalence of these mental health conditions is widely thought to be a consequence of minority stress, the chronic stress from coping with societal stigma and discrimination because of one's identity, including gender identity and gender expression. (American Medical Association, 2019). In other words, lack of access to gender affirming care directly contributes to poorer mental health outcomes for transgender people. (Owen-Smith, et al., 2018).

DR. LEVINE DRAWS INAPPROPRIATE CONCLUSIONS FROM THE NUMBERS AND SEX-RATIOS OF GENDER CLINIC REFERRALS

70. Dr. Levine references the increase in the numbers of referrals to gender clinics, and changes in sex ratios of patients. (Levine, ¶¶ 59, 91). As an initial matter, in his caricature of doctors pushing medical transition, Dr. Levine says the field is ignoring and avoiding exploration of these developments. (Levine, ¶ 59). That is not the case. Indeed, the draft WPATH SOC, 8th revision Adolescent chapter specifically discusses the increase in referrals to gender clinics and the sex ratios of these young patients. (*See* WPATH SOC Draft for Public Comment - Adolescent, Dec. 2021, at 1, 3-4). But Dr. Levine draws unsupported conclusions about the rise in number of referrals and changes in sex ratios observed in some clinics. He claims this means adolescents are rapidly adopting a transgender identity only to change their mind later, leading them to undergo irreversible medical treatments they later regret. This conclusion is unfounded.

71. The rise in numbers of referrals is hardly surprising given the greater awareness on the part of youth and their parents of what gender dysphoria is and that care is available, as well as the significant increase in the number of clinics available to provide care. In addition, the stigma associated with being transgender, while still significant, has lessened in recent years. Coming out to parents and seeking care are options that did not exist for many youth until recently, so an increase in numbers of referrals to gender clinics is not surprising.

72. While increases in numbers and changes in sex ratios of patients referred to some gender clinics have been reported, since the number of patients referred to gender clinics reflects only a small fraction of the people identifying as transgender, these changes may reflect changes in referral patterns to clinics rather than changes in the number of people identifying as transgender.

73. Sex ratios of patients vary from clinic to clinic and over time. When I was the psychiatrist for the Dimensions Clinic for transgender youth in San Francisco from 2003 to 2020, a consistent majority of my patients were assigned female at birth. Other clinics have had more assigned male at birth patients. The rise in numbers and percentage of patients assigned female at birth observed at some clinics in recent years is not surprising given the historical development of the study of gender dysphoria in youth. The first large American study of gender non-conforming youth was the Feminine Boy Study at UCLA. There was significant societal discomfort with and rejection of boys who departed from sex stereotypes—the director of the study referred to them as "sissy boys" in the book resulting from the study—and these boys often experienced bullying from peers. In this context, boys who were perceived to be effeminate were the population brought in to psychiatrists by their parents and were the population that was initially studied by researchers. (Green, 1987). Parents were not as concerned about gender non-conforming girls as they were more socially accepted. There was also less awareness among the general public of the existence of transgender males and that transitioning was an option for individuals assigned female at birth who were experiencing gender dysphoria. The increase in awareness in recent decades made it possible for individuals who ultimately came to identify as transgender men to come out and seek care.

CONCLUSION

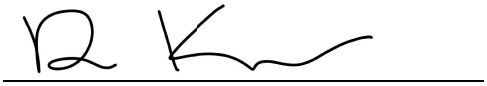
74. Dr. Levine presents a perspective on transgender health that is far from the mainstream medicine and mental health practices. The practice of transgender health and the medical necessity of the provision of health care to treat gender dysphoria is well established. Transgender patients benefit from their healthcare, regret rates are very low, and the treatments

endorsed by mainstream medicine have been shown to improve quality of life, decrease distress, and decrease suicidality.

* * *

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

Executed this 17 day of March, 2022.



Dan H. Karasic, M.D.

Subscribed and sworn before me, a Notary Public in and for the County of Norfolk, State of Virginia, this 17 day of March, 2022.

KETSIA MCCLEASE
Electronic Notary Public
Commonwealth of Virginia
Registration No. 327724
My Commission Expires Apr 30, 2023

Ketsia McClease
Signature of Notary

This notarial act was performed online by way of two-way audio/video communication technology.

1647460027-karasic-rebuttal-report_final

Final Audit Report 2022-03-17

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Exhibit A

A ARASIC I IO RA

Allen, L. R., Watson, L. B., Egan, A. M., & Moser, C. N. (2019). Well-being and suicidality among transgender youth after gender-affirming hormones. *Clinical Practice in Pediatric Psychology, 7*(3), 302–311. https://doi.org/10.1037/cpp0000288.

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First Amended Class Action Complaint, *Fain v. Crouch*, Case No. 3:20-cv-00740 (S.D.W.V.)

Health plan booklets for plans offered through the West Virginia Public Employees Insurance Agency and the West Virginia Bureau for Medicaid Services

Medical records of Plaintiffs Christopher Fain, Shauntae Anderson, and Leanne James