

EXHIBIT A

Curriculum Vitae

Name: **Linda Aline Hawkins, PhD, LPC**

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Education & Licensure

Licensed Professional Counselor, Pennsylvania – PA #006287 - March, 2012

Ph.D., Human Development & Human Sexuality, Clinical Counseling Focus – Widener University, Chester, PA, October, 2009

Linda Lehnert Memorial Award – Excellence in Academics & Research (4.0 GPA)

Distinguished Dissertation Nomination – Gender Identity Development among Gender Variant Adolescents: A Qualitative Analysis

M.S.Ed., Psychological Services – University of Pennsylvania, Philadelphia, PA, August, 1998

B.S., Speech and Hearing Sciences – University of Washington, Seattle, WA, June, 1993

Current Employment

Founder & Director: Gender & Sexuality Development Program, The Children's Hospital of Philadelphia, Philadelphia, PA, January 2014 to present.

This clinic was one of the nation's first four pediatric gender clinics to support children and youth who are gender non-conforming, gender explorative and/or transgender.

Accomplishments as part of achieving this include:

- Developed the business plan and founded the Philadelphia clinic at the Hospital in January, 2014 and expanded to include a Voorhees, NJ clinic in January of 2020.
- Established needed gender affirming policies within the Hospital to support the clinic patients and families, including updating the employee non-discrimination policy and the patient bill of rights.
- Currently running a clinic of nearly 1500 families within first three years of opening; fielding 10-15 referrals weekly.
- Securing nearly 100% rate of insurance coverage for puberty blockers through advocacy and education between hospital physicians and insurance adjusters.
- Secured multiple internal and external funding for patient and family needs, including full funding for the family support group, giving library of books to support family exploration and childhood learning on gender, and training support.
- Supervise and coordinate staff and scheduling.
- Lead and participate in research development as it pertains to the development of best care practices for our patients and families.
- Assure the Hospital and all affiliates are performing at the highest level possible in the overarching support for all LGBTQ staff, employees and providers.
- Providing state and regional trainings for health care and mental health providers.
- Mentoring hospitals nationwide in developing gender affirming care clinics with practices, policies, training and advocacy.
- Advising local, regional and national guidelines for the care of transgender and gender expansive children, youth and their families.

Family Services Specialist: Department of Patient & Family Services, The Children's Hospital of Philadelphia, January, 2014 to present.

Goal is to provide on-going assessment of the Hospital policies and practices to assure at every point of contact with patients, families and staff, LGBT individuals are treated with respect, competence and the best practices in health care and employment experience.

- Conducting annual training seminars and lectures throughout the CHOP Network and affiliates to increase their LGBT competence in supporting patients and families.
- Conducted numerous Grand Rounds presentations and private sessions to assist multiple hospitals to both increase their LGBT patient and family competence, as well as increase specific competence with transgender child/youth patient care.
- Establishing first pediatric plans for Transgender Child & Youth Policy & Practice.
- As a result of all of the above, successfully supported the Hospital in achieving the Human Rights Campaign Endorsement as a Leader in LGBT Healthcare Equality for The Children's Hospital of Philadelphia from 2014 to present..

Director & Trainer: Advanced Training in Affirmative Therapy for Transgender Communities, Widener University, January, 2018 to present.

Designed and implemented a one-year professional training program for mental health providers based at Widener University. Expanded to bi-coastal in-person offering in Philadelphia and Seattle, shifted to online during pandemic.

- Designed year-long curriculum that includes two, in-person weekends and weekly on-line supervision as well as monthly readings.
- Supervise 6 training staff to implement the above training and supervision needs.
- Develop promotion materials to reach a national audience of potential participants.

Additional Program Development & Management Experience

Interim Director, Gender Affirming Care Clinic: Johns Hopkins All Children's Hospital, St. Petersburg, FL, September 2019 to September 2021. **Accomplishments:** Completed comprehensive needs assessment of the hospital network to determine existing strengths and areas for growth in providing gender affirming care. Completed comprehensive needs assessment of patient and family care needs. Developed and implemented program expansion plan resulting in the first fully staffed, interdisciplinary care program for transgender and gender nonbinary children, youth and families in the state of Florida.

Interim Director, Center for Gender Affirming Care: Rady Children's Hospital, San Diego, CA, January 2017 to January 2019. **Accomplishments:** Completed comprehensive needs assessment of the hospital network to determine existing strengths and areas for growth in providing gender affirming care. Completed comprehensive needs assessment of patient and family care needs. Developed and implemented program expansion plan resulting in the rebuilt interdisciplinary care program for transgender and gender nonbinary children, youth and families in San Diego.

Director of Counseling Services: The Attic Youth Center, Philadelphia, PA, May, 2004 to September, 2011. **Accomplishments:** Expanded program from 2 therapists to 7 therapists with psychiatry partnership and insurance funding. Supervised therapists (MSW, MEd, PsyD and

PhD level clinicians) to provide complete counseling and psychosocial services to sexual and gender minority youth (ages 14-24 years old). Built collaboration with Community Behavioral Health (CBH) to ensure funding for services. Developed annual student training program. Clinical team awarded the Association of Gay & Lesbian Psychiatrists Honor of Mental Health for Youth in 2011. Supervisors: Carrie Jacobs, PhD, Executive Director and Cornelius Furgesson, PhD, Licensed Psychologist.

Program Manager, HIV Counseling and Testing: Adolescent Medicine, The Children's Hospital of Philadelphia, Philadelphia, PA, October, 2004 to March, 2008. Accomplishments: Organized and coordinated all adolescent sexual health and HIV counseling within the Hospital network. Expanded program from 2 testing sites to 9 sites including multiple community events throughout Philadelphia. Developed testing protocols that met and exceeded best practice for testing with youth and young adults. Led strategic grant writing to fund existing and expanded programming, securing annual funding for 4 full time health educators/testers and partial supervision/management salaries. Supervisor: Christine Ambrose, LSW, Program Manager.

Program Coordinator: The Injury Free Coalition for Kids of Philadelphia, The Children's Hospital of Philadelphia, Philadelphia, PA, February, 1999 to February, 2004.

Accomplishments: Developed a community based coalition of medical, education, public health, government, and faith based leaders to address the crisis of unintentional injury to children in West and Southwest Philadelphia. Led research and interventions to assess needs, build partnerships and strategize solutions with and for the community. Provided training and guidance to MD, MPH, SW, MEd, and PhD students interested in community based wellness and public health promotion. Led strategic grant writing to secure initial and sustainable funding for core coalition staff and all projects through sources including: Robert Wood Johnson Foundation, DHHS, Ronald McDonald House Philadelphia, Philadelphia Foundation, PEW Charitable Trust, and multiple local funding groups. Successfully funded a \$300,000 playground through grassroots, faith-based and competitive matching funds. Supervisors: Flaura Winston, MD, PhD, Center for Pediatric Injury Prevention, and Marla Vanore, MEd, Trauma Program Manager.

Additional Clinical Experience

Private Practice: Hawkins LifeWorks LLC, Philadelphia, PA, September, 2012 to January, 2014. *Private practice offering clinical support to children and youth who identify as LGBTQ and their families (no new clients as of 2014). Currently offering training for schools, churches and community agencies. Also providing clinical supervision to trainees seeking clinical training needs in these specific areas.*

- Supported numerous children, youth and families in their mental health care needs.
- Supervised 12 clinical trainees, to date, in their clinical training hours.
- Continue to clinically supervise 4 trainees seeking licensure and a dozen clinicians within private practice.
- Providing trainings at colleges and hospitals throughout the nation to increase their competency in supporting the needs of LGBT children, youth and families.

Lead Mental Health Counselor: Adolescent HIV Initiative, Adolescent Medicine, The Children's Hospital of Philadelphia, Philadelphia, PA, February, 2004 to December, 2013. Duties:

Providing one on one, couples, family, and group counseling to youth diagnosed with HIV. Train and supervise intern, extern and practicum students in clinical counseling. Build partnerships with community-based counseling and psychiatry services to provide comprehensive seamless care to patients. Lead and assist in grant writing to fund psychosocial support team members (social work, nursing and wellness counselor) with successful awards from the AIDS Activities Coordinating Office (AACO), NIH, NIMH, and DHHS. Supervisor: Tracy DiFonzo, LCSW, Program Manager and Benoit Dube, MD, Psychiatrist.

Adolescent Counselor: The Attic Youth Center, Philadelphia, PA, February, 1999 to December, 2006. Duties: Providing one on one, couples, and group counseling to gay, lesbian, bisexual, transgender, and questioning youth. Supervisor: Cornelius Furgesson, PhD, Licensed Psychologist

Adolescent Counselor: The Open Door, Philadelphia Community Health Alternatives, Philadelphia, PA, March, 1999 to March, 2001. Duties: Providing one on one, couples, and group counseling to gay, lesbian, bisexual, transgender, and questioning youth. Supervisor: Phillip Rutter, PhD, Program Director.

Child Clinical Therapist Intern: Philadelphia Child Guidance Center – Department of Child & Adolescent Psychiatry at the Children’s Hospital of Philadelphia, Philadelphia, PA, September, 1997 to May, 1998. Duties: Conducted individual and group counseling with behaviorally challenged children and their families. Collaborated with multidisciplinary team to devise and implement treatment plans. Supervisor: Dr. Brenda Pemberton, Director.

Additional Teaching Experience

Adjunct Associate Professor: Widener University Center for Human Sexuality Studies, Chester, PA, Summer, 2008 to Spring, 2017.

The Center for Human Sexuality Studies at Widener University is the only nationally accredited program in sexuality education and clinical sexuality training in the United States. Students come from across the nation and Canada to train within this program.

Courses Taught as Lead Instructor:

- *HSED 645 – Sexual Minorities*
- *HSED 624 - Education and Training Methods for the Clinical Sexologist*
- *HSED 695 & 696 - Practicum Supervision (2 semesters)*
- *HSED 588(elective) – Clinical Implications of HIV*
- *HSED 588(elective) - Sexually Transmitted Infections & HIV/AIDS*
- *HSED 593 - Behavioral Foundations of Human Sexuality*
- *HSED 645 - Sexual Minorities*
- *ED652 - Group Process and Dynamics*
- *PY 622 – Trauma, Advocacy & Social Justice*
- *CFTP 511 – Introduction to Sex Therapy: Concepts in Human Sexuality*

Consistently achieving exceptional ranking in all course evaluations, on both content, communication and expertise.

Awarded the 2015 Widener Points of Pride Award – awarded annually to the faculty member for exceptional scholarship in the field of sexuality to support the students, faculty and overall profession in the field.

Adjunct Professor: Arcadia University Masters in Psychology Program, Glenside, PA, Fall, 2013 to Spring, 2014. Duties: Design, instruct and evaluate courses for Masters level students. Supervisor: Dr. Eleonora Bartoli, Program Director.

Additional Research Experience

Study Coordinator & Behavioral Study Interventionist: Adolescent Trials Network (ATN), The Children's Hospital of Philadelphia, Philadelphia, PA, January, 2008 to December, 2013. Duties: Implement NIH funded research protocols as designed and designated through the ATN. As coordinator, assure all subject selection, protocol procedure, documentation, data entry, and quality assurance meets and exceeds study requirements. As interventionist, assure all aspects of intervention procedures meet the dynamic needs of the subjects and the study protocol. Supervisor: Mary Tanney, RN, MPH, Research Nurse.

2010 – 2013: Study Interventionist & Coordinator for *Treatment for Depression Among HIV-Infected Youth – (ATN 080)*

2008 – 2013: Study Coordinator for *Neurocognitive Assessment in Youth Initiating HAART, A Multi-Center Study of the Adolescent Medicine Trials Network for HIV/AIDS Interventions (ATN 071)*

2009 – 2012: Study Coordinator & Supervisor for *Mindfulness Approaches to Increasing Wellness Among Youth Living with HIV – Partnership with The Johns Hopkins School of Medicine*

2008 – 2010: Study Interventionist & Coordinator for *Integrated Treatment of Alcohol and/or Marijuana Abuse for HIV-Infected Youth – Focus Groups, Phase I & Phase II (ATN 069)*

2008 – 2009: Co-Investigator for *Sexual Health Risk Among Adolescent and Young Adult African Americans Living with HIV who have Sex with Men – Adolescent Initiative Study, The Children's Hospital of Philadelphia*

2005 - 2006: Primary Investigator for *Internal Validation of OraQuick Advance Rapid HIV 1-2 Antibody Test Kit on Oral Fluids Compared to Standard ELISA Serum Screening – Point of Care Testing, The Children's Hospital of Philadelphia*

2004 – 2005: Co-Investigator for *Post-Traumatic Stress Reactions in HIV-positive Youth: An exploratory study to identify life stressors and impact of diagnosis - Adolescent Initiative Study, The Children's Hospital of Philadelphia*

Peer-reviewed Publications

2021 Hobson, B., Lett, E., **Hawkins, L.**, Swediman, R., Nance, M., & Dowshen, N. Transgender Youth Experiences with Implant GnRH

- Agonists for Puberty Suppression. *Transgender Health*, 16 Sep 2021 <https://doi.org/10.1089/trgh.2021.0006>
- 2021 Experiences of Chest Dysphoria and Masculinizing Chest Surgery in Transmasculine Youth. Mehringer, J., Harrison, J., Quain, K., Sea, J., **Hawkins, L.**, & Dowshen, N. *Pediatrics*, 147(3).
- 2020 Schlupp, A., Dowshen, N., **Hawkins, L.**, & Stallings, V. The Prevalence and Patterns of Food and Beverage Restriction for Bathroom Avoidance in Transgender and Gender-Diverse Youth: A Retrospective Chart Review. *Journal of Adolescent Health Research Poster Symposia*, 66(2), S29.
- 2019 Libby, B., Miller, V., Regan, K., Gruschow, S., Hawkins, L., & Dowshen, N. Communication of Acceptance and Support In Families Who Have Gender-Variant Youth. *Journal of Adolescent Health*, 64(2), S101-S102.
- 2019 House, H., Gaines, S., **Hawkins, L.**, Sexual and Gender Minority Adolescents: Meeting the Needs of Our LGBTQ Patients and Their Families. *Clinical Pediatric Emergency Medicine*, 20(1), 9-16.
- 2018 Dowshen, N., Gruschow, S., Taylor, S., Lee, S., & **Hawkins, L.** Barriers to Care for Gender Non-Conforming Youth: Perspectives of Experienced Care Providers, Transgender Youth and Their Parents. *Journal of Adolescent Health*, 62(2), S42.
- 2018 Hickerson, K., **Hawkins, L.**, & Hoyt-Brennan, A. Sexual Orientation/Gender Identity Cultural Competence: A Simulation Pilot Study. *Clinical Simulation in Nursing*, 16, 2-5.
- 2017 Brown, L., Kennard, B., Emslie, G.,...**Hawkins, L.** Effective Treatment of Depressive Disorders in Medical Clinics for Adolescents and Young Adults living with HIV: A controlled trial. *Journal of Acquired Immune Deficiency Syndrom*, 71(1), 38-46.
- 2016 Contributing author. Supporting & Caring for Transgender Children. *Human Rights Campaign*.
- 2016 Dowshen, N., Lee, S., Castillo, M., **Hawkins, L.**, & Barg, F. Barriers and Facilitators to HIV Prevention, Testing, and Treatment among Young Transgender Women. *Journal of Adolescent Health*, 58(2, Supp), S81-82.
- 2016 Dowshen, N., Meadows, R., Byrnes, M., **Hawkins, L.**, Eder, J., & Noonan, K. Policy Perspective: Ensuring comprehensive care and support for gender nonconforming children and adolescents. *Transgender Health*, 1(1), 75-86. <http://online.liebertpub.com/doi/pdfplus/10.1089/trgh.2016.0002>

- 2016 McClain, Z., **Hawkins, L.A.**, & Yehai, B. Creating Welcoming Spaces for Lesbian, Gay, Bisexual, and Transgender (LGBT) Patients: An Evaluation of the Healthcare Environment. *Journal of Homosexuality*, 63(3).
- 2015 Dowshen, N., Meadows, R., Byner, M., **Hawkins, L.**, Eder, J., & Noonan, K. Ensuring Comprehensive Care and Support for Gender Non-Conforming Children and Adolescents. *Policy Lab: Evidence To Action*, Fall 2015.
- 2014 Kennard, B., Brown, L., T., **Hawkins, L.**, Risi, A., Radcliffe, J., Emslie, G., Mayes, T., King, J., Foxwell, A., Buyukdura, J., Bethel, J., Naar-King, S., Safran, S., Xu, J., Lee, S., Garvie, P., London, C., Tanney, M., Thornton, S., and the Adolescent Trials Network for HIV/AIDS Interventions. Development of Health and Wellness CBT for Individuals with Depression and HIV: Feasibility and Acceptability. *Journal of Cognitive & Behavioral Practice*, pp 237-246.
- 2011 Radcliffe, J., Beidas, R., **Hawkins, L.** & Doty, N. Trauma and Sexual Risk Among Sexual Minority African American HIV Positive Young Adults. *Traumatology*, June 2011.
- August, 2010 Radcliffe, J., Doty, N., **Hawkins, L.A.**, Smith, C. Beidas, R., and Rudy, BJ. Stigma and Sexual Health Risk in HIV-Positive African American Young Men who have Sex with Men. *AIDS Patient Care and STDs*, 24(8).
- May, 2010 Radcliffe, J., Beidas, R., **Hawkins, L.A.**, and Doty, N. Trauma and Sexual Risk Among Sexual Minority African-American HIV+ Young Adults. *Traumatology*. May 7, 2010 as doi:10.1177/1534765610365911
- June, 2009 Valenzuela, J., Buchanan, C., Radcliffe, J., Ambrose, C., **Hawkins, L.A.**, Tanney, M. and Rudy, BJ. Transition to Adult Services Among Behaviorally Infected Adolescents with HIV – A Qualitative Study. *Journal of Pediatric Psychology*, Advanced Access published June 19, 2009
- June, 2008 Mollen, CJ, Lavelle, J., **Hawkins, LA**, Ambrose, C. and Rudy, BJ. Description of a Novel Pediatric Emergency Department-Based HIV Screening Program for Adolescents. *AIDS Patient Care and STDs*, 22(6), 505-512.
- July, 2007 Radcliffe, J, Fleisher, C.L., **Hawkins, LA**, Tanney, M, Kassam-Adams, N, Ambrose, C, and Rudy, BJ. Posttraumatic Stress and Trauma History in Adolescents and Young Adults with HIV. *AIDS Patient Care and STDs*, 21(7), 501-508.

- June, 2004 Posner, J., **Hawkins, L.A.**, Garcia-Espana, F., & Durbin, D.
A randomized controlled trial of a home safety intervention based in an
emergency department setting. *Pediatrics*, 113(6), 1603-1608.
- September, 2004 Nance, ML, **Hawkins, L.A.**, Branas, CC, Vivarelli-O'Neill, C, and
Winston, FK. Optimal driving conditions are the most common injury
conditions for child pedestrians. *Pediatric Emergency Care*, 20(9), 569-
573.
- December, 2001 Kodman-Jones, C., **Hawkins, L.**, Schulman, S.L. Behavioral
characteristics of children with daytime wetting. *Journal of Urology*,
166(6);2392-2395.

Book chapters and other publications

- 2019 Dube, B, & **Hawkins, L.A.** (2019). Sexual Disorders and Transgender
Health. Chapter 11 in *Fundamentals in Consultation Psychiatry: Principles
and Practice*. Eds Lavakumar, M., Rosenthal, L., & Rabinowitz, T. Nova
Medicine & Health: New York, NY
- 2018 Hickerson, K., **Hawkins, L.A.**, Hoyt-Brennan, A. (2018). Sexual
Orientation/Gender Identity Cultural Competence: A simulation pilot
study. *Clinical Simulation in Nursing*, 16, 2-5.
- 2016 McClain, Z., **Hawkins, L.A.**, Yehia, BR. (2016). Creating Welcoming
Spaces for Lesbian, Gay, Bisexual and Transgender (LGBT) Patients: An
evaluation of health care environment. *Journal of Homosexuality*, 63(3),
387-393.
- 2016 **Linda A. Hawkins**, Nadia Dowshen, Susan Lee. The Bathroom Debate: A
legal argument that is causing a public health crisis, PolicyLab, Children's
Hospital of Philadelphia <http://policylab.chop.edu/blog/bathroom-debate-legal-argument-causing-public-health-crisis>
- 2015 Ensuring Comprehensive Care and Support for Gender Non-Conforming
Children and Adolescents. <http://policylab.chop.edu/evidence-action-brief/ensuring-comprehensive-care-and-support-gender-non-conforming-children-and>
- 2015 Simms, S., & **Hawkins, L.A.**, *Families with Chronic Medical Issues*,
book chapter in Browning, S (Ed.), *Contemporary Families: Translating
Research into Practice*. Routledge: New York, NY.

- 2014 **Hawkins, L.A.**, & Ginsburg, K.R., *Core Principles in Communicating with Adolescents*, in Ginsburg KR and Kinsman SB. Reaching Teens: Wisdom from Adolescent Medicine. Elks Grove Village IL; American Academy of Pediatrics; (A Textbook and Video Product)
- 2014 Dowshen, N., **Hawkins, L.A.**, Arrington-Saunders, R., Reirden, D.H., & Garofalo, R, *Sexual and Gender Minority Youth*, in Ginsburg KR and Kinsman SB. Reaching Teens: Wisdom from Adolescent Medicine. Elks Grove Village IL; American Academy of Pediatrics; (A Textbook and Video Product)
- 2014 Dowshen, N., **Hawkins, L.A.**, Arrington-Saunders, R., Reirden, D.H., & Garofalo, R, *HIV-Infected Youth*, in Ginsburg KR and Kinsman SB. Reaching Teens: Wisdom from Adolescent Medicine. Elks Grove Village IL; American Academy of Pediatrics; (A Textbook and Video Product)
- 2014 Radcliffe, J., **Hawkins, L.A.**, & Buchanan, C. Pediatric HIV, book chapter in Clinical Practice of Pediatric Psychology: Cases and service delivery. Guilford Press.

Professional Organizations & Appointments

- 2019 – Present College of Physicians of Philadelphia - Fellow
- 2018 – Present Pennsylvania Transgender Task Force – Appointed by Dr. Rachel Levine and Governor Tom Wolfe - Member
- 2017 – Present Human Rights Campaign Transgender Working Group - Member
- 2012 – Present American Counseling Association – Member
- 2012 – Present Pennsylvania Counseling Association - Member
- 2011 – 2017 Sexuality Information and Education Council of the United States – Board Member
- 2010 – Present Academic Pediatrics – Reviewer
- 2010 – Present Society for the Scientific Study of Sexuality – Member & Reviewer
- 2008 – 2010 Equality Advocates (now Equality Pennsylvania) – Board Member
- 2005 – Present World Professional Association for Transgender Health (formerly HBGDA) - member
- 2005 – Present Society for the Scientific Study of Sexuality – Member
- 2005 – Present American Association of Sexuality Educators, Counselors and Therapists – Member

Invited Lectures

- February 2020 Supporting Transgender, Gender Non-Conforming and Gender Expansive Children & Youth
Department of Social Work
Johns Hopkins All Children's Hospital, St. Petersburg, FL
- January 2020 It Starts With You: Promoting LGBTQ Competence among Colleagues

Lecture Series: Office of Diversity & Inclusion
The Children's Hospital of Philadelphia, Philadelphia, PA

October 2019	Expanding Care for All to Include Transgender Children & Youth Keynote: New Jersey Physicians Advisory Committee, Cherry Hill, NJ
September 2019	Supporting Transgender Children & Youth Keynote: Cooper Pediatrics Group, Moorestown, NJ
September 2019	Collaborating for Care: Models of Gender Clinic Collaboratoin & Mentorship Across the US National Conference, United States Professional Association for Transgender Health (USPATH), Washington, DC
July 2019	Building Knowledge, Skills and Community to Support Transgender Communities: A training program for mental health professionals 2019 Trans Wellness Conference, Philadelphia, PA
July 2019	Non-Binary Youth: Clinical Complexities of Supporting Gender Creativity in a Binary World Gender Spectrum Conference, Moraga, CA
June 2019	Transforming Systems: Creating the Ideal Trans Care Experience National Conference, Canadian Professional Association for Transgender Health (CanPATH), Toronto, Canada
December 2018	Foundational Aspects of Gender Development & Gender Identity Emergence across the Lifespan Hospital of the University of Pennsylvania, Philadelphia, PA
September 2018	Understanding Gender Identity & Development in 2018: Professional, parental and personal perspectives The College of Physicians of Philadelphia, Philadelphia, PA
February 2018	Creating the Ideal LGBTQ Patient & Family Experience: From Policy to Practice Boston Children's Hospital, Boston, MA
February 2017	Creating Systemic Change for Transgender Children & Youth: Establishing a multidisciplinary pediatric practice that supports patients and families within a hospital network and beyond National Conference, United States Professional Association for Transgender Health (USPATH), Los Angeles, CA
March 2016	Pennsylvania College of Physicians

	Supporting Transgender, Gender Non-Conforming and Gender Expansive Children & Youth, Philadelphia, PA
March 2016	Children's Hospital Association National Conference Creating an Inclusive Experience for LGBT Patients & Families: Policy to Practice, New Orleans, LA
September 2015	Supporting Transgender, Gender Non-Conforming and Gender Expansive Children & Youth Keynote speaker, MSW Field Faculty Orientation University of Pennsylvania School of Social Policy & Practice
April, 2015	Understanding Transgender & Gender Expansive Children & Youth Psychiatry Grand Rounds Baystate Medical Center, Springfield, MA
March, 2015	Creating an Inclusive Experience for LGBT Patients & Families <i>**Human Rights Campaign Endorsed Training</i> Family Centered Care Grand Rounds The Children's Hospital of Philadelphia, Philadelphia, PA
March, 2015	Supporting Gender Non-Conforming Children & Youth in Primary Care CHOP at Virtua Care Center, Voorhees, NJ
March, 2015	Creating a Supportive Campus for All Students William Penn Charter School, Middle School, Philadelphia, PA
December, 2014	Understanding & Supporting Your Transgender Patient Family Practice Resident Training Hospital of the University of Pennsylvania, Philadelphia, PA
December, 2014	LGBT Inclusive Research Practice <i>**Human Rights Campaign Endorsed Training</i> PROSPER Research Training Children's Hospital of Philadelphia Research Institute, Philadelphia, PA
December, 2014	Creating Child Abuse Investigations Inclusive of Sexual Orientation & Gender Identity Philadelphia Children's Alliance Annual Conference, Philadelphia, PA
November, 2014	Affirmative Clinical Work with Gender-Expansive Children & Youth: Common Issues & Considerations Gender Spectrum East Conference, Baltimore, MD
October, 2014	Supporting Lesbian, Gay, Bisexual and/or Transgender Individuals & Families

Montgomery Behavioral Health Provider Training Series, Norristown, PA

September, 2014	Creating a Supportive Campus for All Students William Penn Charter School, Upper School, Philadelphia, PA
June, 2014	Multidisciplinary Best Practice: Medical, Mental Health & Legal Perspectives 13 th Annual Trans Health Conference, Philadelphia, PA
June, 2014	Supporting Non-Binary Children & Youth: A partnership between mental health and medical providers 13 th Annual Trans Health Conference, Philadelphia, PA
February, 2014	Supporting LGBT Families in the NIICU <i>**Human Rights Campaign Endorsed Training</i> NIICU Medical Professional Day of Learning The Children's Hospital of Philadelphia, Philadelphia, PA
June, 2013	Contemporary Counseling with Transgender Children, Youth & Families 12 th Annual Philadelphia Trans-Health Conference, Philadelphia, PA
April, 2013	Supporting Youth & Young Adults who are Living with HIV Marriage & Family Therapy Program Jefferson University, Philadelphia, PA
March, 2013	LGBT Child & Youth Update: Coming out, therapy needs & family support Marriage & Family Therapy Program Jefferson University, Philadelphia, PA
November, 2012	Creating the Ideal Patient Experience: Serving our Lesbian, Gay, Bisexual and/or Transgender Patients & Families Pride at CHOP Staff Training Seminar Series The Children's Hospital of Philadelphia
November, 2012	The Internet as a Factor in Gender Identity Development for Transgender and Gender Variant Adolescents Society for the Scientific Study of Sexuality Annual National Conference, Tampa, Florida
September, 2012	Building on Classroom Inclusion: Adding a Layer on Gender School-wide Training Greene Street Friends School, Philadelphia, Pennsylvania

EXHIBIT 2

**UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF ALABAMA
NORTHERN DIVISION**

REV. PAUL A. EKNES-TUCKER;
BRIANNA BOE, individually and on behalf
of her minor son, MICHAEL BOE; JAMES
ZOE, individually and on behalf of his minor
son, ZACHARY ZOE; MEGAN POE,
individually and on behalf of her minor
daughter, ALLISON POE; KATHY NOE,
individually and on behalf of her minor son,
CHRISTOPHER NOE; JANE MOE, Ph.D.;
and RACHEL KOE, M.D.

Plaintiffs,

v.

KAY IVEY, in her official capacity as
Governor of the State of Alabama; STEVE
MARSHALL, in his official capacity as
Attorney General of the State of Alabama;
DARYL D. BAILEY, in his official capacity
as District Attorney for Montgomery County;
C. WILSON BAYLOCK, in his official
capacity as District Attorney for Cullman
County; JESSICA VENTIERE, in her official
capacity as District Attorney for Lee County;
TOM ANDERSON, in his official capacity as
District Attorney for the 12th Judicial Circuit;
and DANNY CARR, in his official capacity
as District Attorney for Jefferson County.

Defendants.

Civil Action No. 2:22-cv-
184-LCB

**DECLARATION OF
MORISSA J. LADINSKY,
MD, FAAP, IN SUPPORT
OF PLAINTIFFS'
MOTION FOR
TEMPORARY
RESTRAINING ORDER &
PRELIMINARY
INJUNCTION**

I, Morissa J. Ladinsky, declare as follows:

1. I am an Associate Professor of Pediatrics at the University of Alabama at Birmingham (“UAB”) School of Medicine.
2. I am a practicing physician and a member of the medical staff at the Children’s Hospital of Alabama and UAB Hospital, both in Birmingham. I am co-lead of the multi-disciplinary gender clinic at UAB Hospital.
3. I obtained a bachelor’s degree (magna cum laude) in Human Biology from Brown University in 1985. I obtained my medical degree (with honors) from Baylor University in 1990.
4. I was certified by the American Board of Pediatrics in 1993. I am licensed to practice medicine in Alabama. I have past licensure in Ohio, Maryland, and Texas when I previously practiced and resided in these states.
5. For the last 31 years, I have dedicated my practice to the medical care of young people. Throughout my career, my patients included transgender young people. Presently, those transgender patients live in Alabama, Mississippi, Florida, and Georgia.
6. Since starting at the gender clinic at UAB, I have treated approximately 250 transgender young people for gender dysphoria.

7. The treatment of gender dysphoria is well-established in the medical profession. This is not a pioneering or experimental area of medicine. There are comprehensive standards of care governing the treatment of gender dysphoria that were developed by the World Professional Association for Transgender Health (WPATH), founded in 1979, and Endocrine Society, in collaboration with the Pediatric Endocrine Society. These guidelines are recognized as the prevailing standard of care by the major associations of medical professionals, including the American Medical Association, American Academy of Pediatrics, and the Society for Adolescent Health and Medicine, to name a few. The current version of the WPATH standards of care have been in place for more than a decade.

8. The treatment of gender dysphoria is also part of medical school curricula across the country and world. In fact, this subject is taught as part of the endocrine module to all students at the UAB School of Medicine. The broader topic of transgender medicine is also found on every state board medical exam, including in Alabama.

9. Incorporated within the standards of care is a process each patient must follow before beginning any treatment for gender dysphoria. And, as with any treatment, we also follow a protocol for obtaining informed consent as part of that process. Standard protocol requires that medical treatment for gender dysphoria is

not prescribed until a patient meets the rigorous requirements outlined in the standards of care and consistent with an informed-consent process.

10. The informed consent procedures used by the gender clinic at UAB are very comprehensive. Patients at the clinic begin that process with their primary care provider and often community based mental health provider before they even have an initial appointment with a doctor like me. The patient's mental health provider thoroughly assesses the patient's mental health, maturity, presence and acuity of dysphoria and if indicated, ultimate readiness to undergo medical treatment for gender dysphoria. Using those assessments as our baseline, our multidisciplinary team begins its evaluation. We meet with the patient and their parents/legal guardians, review the risks, benefits, and alternatives of treatment, as medical and mental health providers do for all treatments. After that initial meeting, we meet with our patients at regular intervals for follow up, allowing us to monitor the patient's gender dysphoria as well as their overall physical and mental health over time. The team also provides families with materials to review and community-based supports and resources to connect with in the time between appointments.

11. Most of our patients are in the care of the gender clinic for one to three years before initiating medical treatment for gender dysphoria, depending on when they first come to the clinic and their individual healthcare needs. Even after that extended observation and assessment period, we will not prescribe any treatment

unless the full multidisciplinary team agrees that treatment is appropriate, and the patient and the patient's parents fully understand, have the capacity to consent, and sign the informed-consent forms. This process is intentionally set up to ensure all involved are making an informed, measured decision, from the healthcare providers to the patients and their parents.

12. Throughout this evaluation information-sharing process, patients are encouraged to avail themselves of the various services offered as part of our multidisciplinary clinic, including pastoral care. The purpose of these services is to get a full picture of a patient's health, wellbeing, household support, and functioning. Each of those data points help determine whether a potential treatment option may be appropriate for any given patient.

13. Once a patient begins medical treatment, their progress is monitored at regular intervals, typically every six months, to assess the efficacy of the prescribed treatment through a physical examination or laboratory tests. This ongoing monitoring also ensures ongoing evaluation of a patient's mental health and the chance to address any questions the patient or their parents may have.

14. I understand that Governor Ivey signed the Vulnerable Child Compassion and Protection Act (the "Act"). My understanding is that the Act expressly prohibits physicians, and others, from doing or saying anything that could cause a transgender young person, under age 19, in Alabama to undergo medical

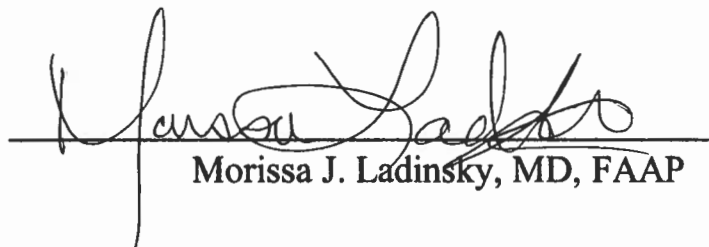
treatment for gender dysphoria. I further understand that violating the Act exposes Alabama healthcare providers and others to criminal prosecution, which could result in a prison sentence or substantial fine.

15. Puberty-blocking medication and hormone-replacement therapy have greatly improved the physical and mental health and wellbeing of my patients. Denying my patients access to these well-established medical treatments will cause the mental health of many of my patients to regress, including increasing their suicidality and likelihood of attempting suicide. To cease ongoing care, without a medical basis, would violate my professional, ethical, and legal obligations by forcing me to harm my patient.

16. In the days since the Act was signed into law, I have met with numerous patients who are experiencing significant psychological distress due to the prospect of the Act going into effect. One teenage patient was visibly trembling in fear. Parents are regularly calling the clinic in tears. The uncertainty weighs heavily on the minds of my patients and their parents. And, for some, their worst fears have already started to materialize: several of my patients have reported to me that their pharmacies are refusing to fill prescriptions relating to the treatment of their gender dysphoria, including for menstrual suppression medications which are supposedly not criminalized by the Act.

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

Executed this 20 th day of April , 2022.



Morissa J. Ladinsky, MD, FAAP

EXHIBIT 3

**UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF ALABAMA
NORTHERN DIVISION**

REV. PAUL A. EKNES-TUCKER;
BRIANNA BOE, individually and on behalf
of her minor son, MICHAEL BOE; JAMES
ZOE, individually and on behalf of his minor
son, ZACHARY ZOE; MEGAN POE,
individually and on behalf of her minor
daughter, ALLISON POE; KATHY NOE,
individually and on behalf of her minor son,
CHRISTOPHER NOE; JANE MOE, Ph.D.;
and RACHEL KOE, M.D.

Plaintiffs,

v.

KAY IVEY, in her official capacity as
Governor of the State of Alabama; STEVE
MARSHALL, in his official capacity as
Attorney General of the State of Alabama;
DARYL D. BAILEY, in his official capacity
as District Attorney for Montgomery County;
C. WILSON BAYLOCK, in his official
capacity as District Attorney for Cullman
County; JESSICA VENTIERE, in her official
capacity as District Attorney for Lee County;
TOM ANDERSON, in his official capacity as
District Attorney for the 12th Judicial Circuit;
and DANNY CARR, in his official capacity
as District Attorney for Jefferson County.

Defendants.

Civil Action No.
2:22-cv-184-LCB

**DECLARATION OF
STEPHEN
ROSENTHAL, MD, IN
SUPPORT OF
PLAINTIFFS' MOTION
FOR TEMPORARY
RESTRAINING ORDER
& PRELIMINARY
INJUNCTION**

I, Stephen M. Rosenthal, M.D., declare as follows:

1. I submit this expert declaration based upon my personal knowledge.
2. If called to testify in this matter, I would testify truthfully based on my expert opinion.

Qualifications and Experience

3. I am a pediatric endocrinologist and have been practicing medicine for over forty years. I received my medical degree from Columbia University, College of Physicians & Surgeons, in 1976, and completed a residency in Pediatrics there. I also completed a fellowship in Pediatric Endocrinology at the University of California, San Francisco (“UCSF”).

4. In 2012, I co-founded the Child & Adolescent Gender Center (“CAGC”) at UCSF. I am the Medical Director at the Center, as well as a Professor of Clinical Pediatrics at UCSF. A true and correct copy of my Curriculum Vitae is attached hereto as **Exhibit A**.

5. The Child and Adolescent Gender Center (CAGC) is a multidisciplinary program that provides comprehensive medical and mental health care, as well as education and advocacy services for transgender youth and adolescents. Since 2012, the CAGC has seen close to 2,000 transgender young people with gender dysphoria, with an average of 15-20 new patients per month, ranging in age from 3 to 25 years old. As Medical Director of the CAGC, I oversee

the medical portion of the multidisciplinary program, which currently includes two other physicians, a doctor of nursing practice, one psychologist, a clinical social worker, nursing, and administrative staff.

6. As of the date of this declaration, I have published 27 scientific research papers in leading peer-reviewed medical journals and authored seven chapters in authoritative textbooks on the topic of medical treatment for gender dysphoria in children and adolescents. Those publications include “Challenges in the Care of Transgender and Gender-Diverse Youth: An Endocrinologist’s View,” published in *Nature Reviews Endocrinology*¹ on August 10, 2021, “Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline,” a guide detailing the standard of medical care for gender dysphoria, and a chapter in the forthcoming standards of care being developed by WPATH. A listing of my publications is included in my Curriculum Vitae in **Exhibit A**.

7. I am also actively serving as a Principal Investigator or Co-Investigator on numerous research projects on the physical and mental health of transgender young people, including a national multi-site study on medical care for transgender young people funded by the NIH.

¹ *Nature Reviews Endocrinology* received an impact factor of 43.33 for the 2021-2022 publication year.

8. I am a member and recent past president (2016-2017) of the Pediatric Endocrine Society and, as of March, 2021, have just completed a three-year term as a member of the Board of Directors for the Endocrine Society, and one-year term as Endocrine Society Vice President, Clinical Scientist Position. I am also an elected member of the Board of Directors of the World Professional Association for Transgender Health (“WPATH”), an international multidisciplinary professional association founded in 1979 to promote evidence-based care, education, research, advocacy, public policy and respect in transgender health. A complete list of my professional associations is included in my Curriculum Vitae in **Exhibit A**.

9. In addition to my work with transgender children and adolescents, I have treated children and adolescents with differences of sex development (“DSD”), commonly referred to as intersex conditions, as well as with a variety of other endocrine conditions, including growth disorders, pubertal disorders, and diabetes. I previously served as Program Director for Pediatric Endocrinology, Director of the Endocrine Clinics, and Co-Director of the Disorders of Sex Development Clinic, a multi-disciplinary program involving pediatric endocrinology, pediatric urology, psychiatry, and social work at UCSF Benioff Children’s Hospital.

10. My opinions contained in this declaration are based on: (i) my clinical experience as a pediatric endocrinologist treating transgender patients, including adolescents and young adults; (ii) my knowledge of the peer-reviewed research,

including my own, regarding the treatment of gender dysphoria, which reflects the clinical advancements in the field of transgender health; and (iii) my review of the expert declaration of Linda A. Hawkins, Ph.D., M.S.Ed., LPC (“Dr. Hawkins Decl.”) submitted in support of the motions. I generally rely on these types of materials when I provide expert testimony, and they include the documents specifically cited as supportive examples in particular sections of this declaration. The materials I have relied on in preparing this declaration are the same type of materials that experts in my field of study regularly rely upon when forming opinions on the subject.

11. I was provided with and reviewed the following case-specific materials: the Dr. Hawkins Decl.

12. In the past four years, I have not provided expert testimony.

13. I am being compensated at an hourly rate for the actual time that I devote to this case, at the rate of \$350 per hour for any review of records, preparation of reports or declarations. I will be compensated with a day rate (6 hours) of \$2,100 for deposition and trial testimony. My compensation does not depend on the outcome of this litigation, the opinions that I express, or the testimony that I provide.

Scientific and Medical Understanding of Sex

14. By the beginning of the twentieth century, scientific research had established that external genitalia alone are not always an accurate indicator of a person’s sex. Instead, a person’s sex is comprised of several components, including,

among others, internal reproductive organs, external genitalia, chromosomes, hormones, gender identity, and secondary-sex characteristics. Diversity and incongruence in these components of a person's sex are a naturally occurring source of human biological diversity.

15. Scientific research and medical literature across disciplines demonstrate each component of sex has strong biological ties, including gender identity. For example, there are numerous studies detailing similarities in the brain structure and function of transgender and nontransgender people with the same gender identity. In one such study, the volume of the bed nucleus of the stria terminalis (a collection of cells in the central brain) in transgender women was equivalent to the volume found in nontransgender women. There are also studies highlighting the genetic components of gender identity. A study of identical twins found that if one twin was transgender that the other twin was far more likely to be transgender, as compared to the general population.

16. The above studies are representative examples of the growing body of scientific research and medical literature in this area of study. There is also ongoing research on the effects of the hormonal milieu in utero, and genetic sources for gender identity, among others.

17. Although the specific determinants of gender identity remain unknown, treatment to bring a person's physical characteristics into alignment with their

gender identity is widely accepted as the standard in medical practice.

Determination of an Individual's Sex

18. At birth, newborns are assigned a sex, either male or female, typically based solely on the appearance of their external genitalia. For most people, that assignment turns out to be accurate and their assigned sex matches that person's gender identity. However, for transgender people, their assigned sex does not align with their gender identity. This lack of alignment can create significant distress for transgender individuals.

19. When there is a divergence between these factors, medical science and the well-established standards of care recognize that treating a person consistent with their gender identity—and prescribing medical treatment to align their body with their gender identity—is essential to that person's health and wellbeing.

20. Gender identity is a person's inner sense of belonging to a particular gender, such as male or female. It is a deeply felt and core component of human identity. Everyone has a gender identity. Children usually become aware of their gender identity early in life.

21. A person's gender identity is innate, cannot be voluntarily changed, and is not undermined by the existence of other sex-related characteristics that do not align with it.

22. Any attempts to “cure” transgender individuals by forcing their gender

identity into alignment with their assigned sex are harmful, dangerous, and ineffective. Those practices have been denounced as unethical by all major professional associations of medical and mental health professionals, such as WPATH, the American Medical Association, the American Academy of Pediatrics, the American Psychiatric Association, and the American Psychological Association.

23. For more than four decades, the goal of medical treatment for transgender patients has been to alleviate their distress by bringing their lives into closer alignment with their gender identity. The specific treatments prescribed are based on individualized assessment conducted by medical providers in consultation with the patient's treating mental health provider. As discussed in more detail in the following section, and in the declaration of Dr. Hawkins, research and clinical experience have consistently shown those treatments to be safe, effective, and critical to the health and well-being of transgender patients.

Standards of Care for the Treatment of Gender Dysphoria

24. Due to the incongruence between their assigned sex and gender identity, transgender people experience varying degrees of "gender dysphoria," a serious condition listed in both the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders ("DSM-5") and the World Health Organization's International Classification of Diseases ("ICD-10"), and has been

recognized as such for decades. It is a condition that affects a small percentage of youth and adults.

25. Gender dysphoria is the diagnostic term for the clinically significant distress resulting from the incongruence between a person's gender identity and the sex they are assigned at birth. In order to be diagnosed with gender dysphoria, the incongruence must have persisted for at least six months and be accompanied by clinically significant distress or impairment.

26. Gender dysphoria is highly treatable and can be effectively managed. If left untreated, however, it can result in severe anxiety and depression, self-harm, and suicidality. Spack NP, Edwards-Leeper L, Feldman HA, et al. Children and adolescents with gender identity disorder referred to a pediatric medical center. *Pediatrics*. 2012; 129(3):418-425. Olson KR, Durwood L, DeMeules M, McLaughlin KA. Mental health of transgender children who are supported in their identities. *Pediatrics*. 2016; 137:1-8.

27. The prevailing standards of care for the treatment of gender dysphoria are developed by WPATH, which has been recognized as the standard-setting organization for the treatment of gender dysphoria for more than forty years.

28. The Endocrine Society is a 100-year-old global membership organization representing professionals in the field of adult and pediatric endocrinology. In 2017, the Endocrine Society published its second clinical practice

guidelines on treatment recommendations for the medical management of gender dysphoria, in collaboration with Pediatric Endocrine Society, the European Societies for Endocrinology and Pediatric Endocrinology, and WPATH, among others. Hembree WC, Rosenthal SM, et al. Endocrine Treatment of Gender Dysphoria/Gender Incongruent Persons: An Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab* 2017; 102: 3869–3903.

29. Together, the SOC and the Endocrine Society’s clinical practice guidelines constitute the prevailing standards guiding the healthcare and treatment of gender dysphoria. The process for writing those standard-setting documents followed well-established methods for developing standards of care, beginning with the convening a core group of experts in the relevant field(s) who are tasked with conducting a comprehensive literature review and preparing a draft document. That draft is then circulated to a larger cross-section of practitioners in the relevant field(s) for review and comment, much like the peer-review process for journals. Those edits and comments are incorporated and compiled into a final document that is reviewed and ratified in a manner consistent with the organization’s bylaws. As a result, the SOC and the Endocrine Society’s clinical practice guidelines reflect the consensus of experts in the field of transgender medicine, based on the best available science and clinical experience.

30. The major professional associations of medical and mental health providers in the United States, including the American Medical Association, American Academy of Pediatrics, American Psychiatric Association, American Psychological Association, and Pediatric Endocrine Society, treat those documents as the prevailing standards guiding the healthcare and treatment of gender dysphoria.

31. Those documents help ensure that healthcare providers, especially those unfamiliar with transgender medicine, know which treatments are safe and effective for the treatment of gender dysphoria, and are able to deliver that necessary medical care to maximize their patients' overall health and wellbeing.

Transition and Medical Treatments for Gender Dysphoria

32. Undergoing treatment to alleviate gender dysphoria is commonly referred to as a transition. The transition process typically includes one or more of the following three components: (i) social transition, including adopting a new name, pronouns, appearance, and clothing, and correcting identity documents; (ii) medical transition, including puberty-delaying medication and hormone-replacement therapy; and (iii) surgical transition, including surgeries to alter the appearance and functioning of primary- and secondary-sex characteristics.

33. The steps that make up a person's transition will depend on that individual's medical and mental health needs, as well as the person's stage of pubertal development.

34. Dr. Hawkins provides an extensive discussion of social transition in her expert declaration. (Dr. Hawkins Decl. at ¶¶ 26–31.) My declaration will discuss the medications and surgical care used to treat gender dysphoria.

35. There are no drug interventions for gender dysphoria until after the onset of puberty. Medical providers evaluate a patient's level of pubertal development through a physical examination and testing the hormone levels in the patient's blood. Once a provider has determined that a transgender patient has begun puberty, the patient may be prescribed puberty-blocking medications.

36. Those medications work by temporarily pausing endogenous puberty and, therefore, limiting the influence of a person's endogenous sex hormones on their body. For example, a transgender girl (someone designated male at birth with a female gender identity) will experience no progression of physical changes caused by testosterone, including facial and body hair, an Adam's apple, a deepened voice, or masculinized facial structures. And in a transgender boy (someone designated female at birth with a male gender identity), those medications would prevent progression of breast development, menstruation, and widening of the hips. This prevents a transgender adolescent from experiencing the severe psychological distress of developing permanent, unwanted physical characteristics that do not align with the adolescent's gender identity.

37. Temporarily halting a transgender adolescent’s pubertal development can also obviate the need for future surgical treatments to address any ongoing gender dysphoria. Avoiding the scarring associated with surgery—and the added stresses of surgery itself—further improve a transgender person’s overall health and wellbeing.

38. A transgender adolescent will remain on those puberty-blocking medications until their providers determine, in consultation with the patient, the patient’s family, and consistent with the prevailing standards of care, whether additional medical treatment is necessary to treat their gender dysphoria. If the decision is to stop taking puberty blockers, the patient’s endogenous puberty will resume.

39. For many transgender youth, it is medically necessary for them to begin hormone-replacement therapy with either testosterone or estrogen. That treatment induces the physical changes of the puberty associated with the patient’s gender identity. The result of this treatment is that a transgender boy has the same typical levels of circulating testosterone as his nontransgender male peers. Similarly, a transgender girl will have the same typical levels of circulating estrogen as her nontransgender female peers. Those hormones cause transgender adolescents to undergo the same significant and permanent sex-specific physical changes as their nontransgender peers. For example, a transgender boy will develop a lower voice as

well as facial and body hair, while a transgender girl will experience breast growth, female fat distribution, and softer skin.

40. If a transgender youth who is on puberty blockers and hormone-replacement therapy ceases these medications, the production of endogenous hormones and puberty consistent with the individual's birth sex will resume.

41. Puberty-delaying medication and hormone-replacement therapy—both individually and in combination—also significantly improve a transgender young person's mental health because those medications ensure their physical appearance more closely aligns with their gender identity. This also decreases the likelihood that a transgender young person will be incorrectly identified with their birth sex, further alleviating their gender dysphoria and bolstering the effectiveness of their social transition.

42. The puberty-delaying medications that are used for treating transgender children are the same medications that have been used for decades and are continued to be used to treat a condition in children often referred to as “precocious puberty,” a condition that causes a child's body to begin pubertal development too early. In other words, the hormone therapy used to treat transgender adolescents is often used to treat non-transgender adolescents for other medical reasons.

43. Social transition and hormone therapy are often sufficient to treat gender dysphoria for many transgender people.

44. Based on my clinical experience, there are transgender young people for whom getting on puberty blockers and hormones before the age of majority will reduce the likelihood of their needing surgical intervention later in life relating to gender dysphoria.

45. Further, recent studies have observed findings that gender-affirming hormone therapy usage is significantly related to lower rates of depression and suicidality among transgender youth. Green AE et al. Association of Gender-Affirming Hormone Therapy With Depression, Thoughts of Suicide, and Attempted Suicide Among Transgender and Nonbinary Youth. *J Adolescent Health* 1-7 (2021); Turban JL et al. Access to gender-affirming hormones during adolescence and mental health outcomes among transgender adults. *PLoS ONE* 17(1) 2021; <https://doi.org/10.1371/journal.pone.0261039>.

46. For transgender people who require surgery to treat their gender dysphoria, the SOC do not recommend surgical treatment until the age of majority, except for male chest reconstruction surgery. Like any other treatment, the medical necessity of surgical procedures to treat gender dysphoria is based on an individualized assessment of the patient's needs.

Assessing Medical Necessity of Medical Treatment for Gender Dysphoria

47. As with the initial diagnosis of gender dysphoria, determining whether a particular treatment is medically necessary for a transgender patient follows a

thorough, well-established process that requires healthcare providers to exercise professional judgment. Contrary to what some believe, prescriptions for puberty-blocking medication and hormone-replacement or referrals for surgery are not made on a whim. Every step of a transgender patient's treatment and care is planned out in consultation with the patient's care team, which includes both medical and mental health providers.

48. Prior to considering starting a course of puberty-blockers or hormone-replacement therapy, a transgender patient undergoes an extensive assessment by a mental health provider. The purpose of that assessment is three-fold: (1) obtaining a complete picture of the patient's mental health, including whether the patient has gender dysphoria; (2) determine the patient's psychological readiness to begin the contemplated treatment; and (3) provide the patient and their family the information they need to make an informed decision about whether to proceed with the treatment. If, after that assessment, the mental health provider determines that the patient should be considered for the contemplated treatment, that professional opinion is documented in a letter to the patient's medical provider.

49. The medical provider then conducts their own separate assessment of the patient, including a physical examination and any necessary laboratory testing. In addition to determining the medical necessity of the contemplated treatment and a patient's medical readiness for that treatment, the medical provider will also

discuss the risks, benefits, and alternatives for the contemplated treatment. Medical providers also discuss with parents that the medications are being prescribed for an off-label use, which is particularly common for medications being used in pediatric patients. That discussion occurs with the patient and their family to ensure that everyone involved in the decision-making process has the information they need to make an informed decision.

50. Once the medical provider has finished addressing any questions or concerns raised by the patient and family, the parents/legal guardians and the patient are provided with a detailed informed consent/assent form that outlines in writing the information the medical provider reviewed with them. The patient and family are encouraged to carefully review that paperwork and sign if they choose to consent/assent to treatment.

51. It is only at the end of that intensive assessment and informed-consent process that a patient is prescribed a particular medical treatment for gender dysphoria.

Medical Treatment for Gender Dysphoria is Evidence-Based Medicine

52. Research and clinical experience repeatedly reaffirm that transition significantly improves the mental and physical health of transgender young people.

53. This is true of each stage of a transgender young person's transition. Transgender young people who underwent a social transition in childhood

demonstrated better mental health profiles than prior studies of gender nonconforming children. See Lily Durwood, et al., *Mental Health and Self-Worth in Socially Transitioned Transgender Youth*, 56 J. Am. Acad. of Child & Adol. Psychiatry 116 (2017); Kristina Olson, et al., *Mental Health of Transgender Children who are Supported in Their Identities*, 137 Pediatrics 1 (2016). This same outcome has also been seen in a longitudinal study of transgender young people who underwent each of the three stages of transition outlined above. Annelou L.C. de Vries, et al., *Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment*, 134 Pediatrics 696 (2014). In a study specifically about male chest reconstruction surgery, post-operative transgender young people demonstrated significant psychological and functional improvements, from a greater willingness to plan for their future and to engage activities of daily living (e.g., bathing, buying clothing). Johanna Olson-Kennedy, et al., *Chest Reconstruction and Chest Dysphoria in Transmasculine Minors and Young Adults Comparisons of Nonsurgical and Postsurgical Cohorts*, 172 JAMA Pediatrics 431, 434 (2018)

54. Transition also can—and often does—alleviate co-occurring mental health issues a transgender young person experienced prior to transition. Following transition, transgender young people typically see significant improvements in functioning and quality of life. Treating their gender dysphoria also increases a

transgender young person’s capacity to develop and maintain better coping strategies to manage any co-occurring conditions.

55. Conversely, delaying or denying transgender young people safe and effective treatment for gender dysphoria—as contemplated by the wait-and-see approach—can have severe consequences on their physical and mental health. Without those medically necessary treatments, transgender young people are likely to develop serious co-occurring mental health conditions (*i.e.* anxiety, depression, suicidality) that will interfere with their ability to learn and impede their psychosocial development.

Conclusion

56. Alabama’s law criminalizing the provision of medical treatment for gender dysphoria is contrary to well-established standards of care, peer-reviewed medical literature, and clinical experience. Medical care for transgender young people in Alabama would be guided by fear of criminal penalty, forcing medical providers to abandon their professional and ethical obligations to follow the prevailing standards of care when treating patients with gender dysphoria.

57. Contrary to its stated purpose, this bill will endanger the health and wellbeing of transgender young people experiencing gender dysphoria by creating significant barriers to their receiving medically necessary care. The lack of access to

that time-sensitive care will have lifelong implications for their quality of life and their ability to effectively treat their gender dysphoria.

This declaration was executed this 19th day of April, 2022.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

By: Stephen M. Rosenthal
Stephen M. Rosenthal, M.D.

EXHIBIT A

University of California, San Francisco **CURRICULUM VITAE**

Name: Stephen M Rosenthal, MD

Position: Recalled Faculty
 Pediatrics
 School of Medicine

Address: Mission Hall, Box 0434
 550 16th Street, 4th Floor
 University of California, San Francisco
 San Francisco, CA 94143
 Voice: 415-476-2266
 Fax: 415-476-5356
 Email: Stephen.Rosenthal@ucsf.edu

EDUCATION

1968 - 1972	Yale University	BA	Psychology
1972 - 1976	Columbia University, College of Physicians & Surgeons	MD	
1976 - 1977	Columbia University, Presbyterian Hospital	Intern	Pediatrics
1977 - 1979	Columbia University, Presbyterian Hospital	Resident	Pediatrics
1979 - 1982	University of California, San Francisco	Fellow	Pediatric Endocrinology

LICENSES, CERTIFICATION

1980	Medical License, California, #G42045
1982	American Board of Pediatrics
1983	American Board of Pediatric Endocrinology

PRINCIPAL POSITIONS HELD

1982 - 1983	University of California, San Francisco	Instructor	Pediatrics
1983 - 1992	University of California, San Francisco	Assistant Professor in Residence	Pediatrics
1992 - 1998	University of California, San Francisco	Associate Professor in Residence	Pediatrics

1998 - 2012	University of California, San Francisco	Professor in Residence	Pediatrics
2012 - present	University of California, San Francisco	Professor of Clinical Pediatrics	Pediatrics

OTHER POSITIONS HELD CONCURRENTLY

2006 - 2015	University of California, San Francisco	Director, Pediatric Endocrine Outpatient Services	Pediatrics
2008 - 2011	University of California, San Francisco	Associate Program Director, Pediatric Endocrinology	Pediatrics
2008 - 2018	University of California, San Francisco	Pediatric Endocrine Director, Disorders of Sex Development (DSD) Clinic	Pediatrics
2011 - present	University of California, San Francisco	Medical Director, Child & Adolescent Gender Center	Pediatrics
2012 - 2015	University of California, San Francisco	Program Director, Pediatric Endocrinology	Pediatrics

HONORS AND AWARDS

2011	Nominated for the Chancellor's Award for Gay, Lesbian, Bisexual, and/or Transgender Leadership for a faculty member	University of California, San Francisco
2012	Nominated for the Chancellor's Award for Gay, Lesbian, Bisexual, and/or Transgender Leadership for a faculty member	University of California, San Francisco
2012	Family Advisory Council Caring Tree Award	UCSF Benioff Children's Hospital
2013	Chancellor's Award for Gay, Lesbian, Bisexual, and Transgender (GLBT) Leadership in the faculty category	University of California, San Francisco

2014	Haile T. Debas Academy of Medical Educators Excellence in Teaching Award	University of California, San Francisco
2018	Harry Benjamin Lectureship, World Professional Association for Transgender Health, for significant contributions to the field of transgender health through research, healthcare provision and medical education	World Professional Association for Transgender Health

KEYWORDS/AREAS OF INTEREST

Biology of gender, transgender, Disorders of Sex Development (DSD), Insulin-like Growth Factors (IGFs), neuroblastoma, water balance disorders, Type 1 Diabetes, medical education, fellowship training.

CLINICAL ACTIVITIES

CLINICAL ACTIVITIES SUMMARY

I currently serve as Medical Director, Child and Adolescent Gender Center, a UCSF/Community partnership designed to provide multidisciplinary services for pediatric and adolescent gender nonconforming/ transgender patients. I have served as Pediatric Endocrine Director, Disorders of Sex Development (DSD) monthly clinic, a multi-disciplinary program involving Pediatric Endocrinology, Pediatric Urology, Psychiatry, and Social Work. I currently Attend in the out-Patient clinics: Currently, 2 clinics/ week.

PROFESSIONAL ACTIVITIES

MEMBERSHIPS

1983 - present	The Endocrine Society
1983 - present	The Pediatric Endocrine Society (formerly known as the Lawson Wilkins Pediatric Endocrine Society)
1983 - 2000	Western Society for Pediatric Research
1986 - present	The Society for Pediatric Research
2011 - present	World Professional Association for Transgender Health (WPATH)

SERVICE TO PROFESSIONAL ORGANIZATIONS

1990 - 1993	Pediatric Endocrine Society	Member, Organizing Committee for the Combined Lawson Wilkins Pediatric Endocrine Society and the European Endocrine Society IV International Meeting
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1999 - 1999	Society for Insulin-like Growth Factor Research	Member, Scientific Planning Committee, 5th International Symposium on Insulin-Like Growth Factors, Brighton, UK
2000 - 2005	Pediatric Endocrine Society	Member, Drug and Therapeutics Committee
2002 - 2005	The Endocrine Society	Member, Special Programs Committee
2003 - 2004	Pediatric Endocrine Society	Chair, Drug and Therapeutics Committee
2005 - 2008	The Endocrine Society	Member, Science and Educational Programs Core Committee
2006 - 2006	Eli Lilly Co.	Member, National Growth Hormone Clinical Physicians Advisory Panel
2007 - 2013	Pediatric Endocrine Society	Member, Ethics Committee
2007 - 2007	Pediatric Endocrine Society, Growth Hormone Research Society, and European Society of Pediatric Endocrinology	Member, Consensus Workshop Committee on Diagnosis and Management of Idiopathic Short Stature
2008 - present	The Endocrine Society	Abstract Reviewer/Grader
2008 - 2011	The Endocrine Society	Member, Annual Meeting Steering Committee
2009 - 2009	Pediatric Endocrine Society and European Society of Pediatric Endocrinology	Abstract Reviewer/Grader

2009 - 2011	The Endocrine Society	Team Leader, Annual Meeting Steering Committee
2010 - 2013	Pediatric Endocrine Society	Elected to Board of Directors
2012 - 2012	The Endocrine Society	ENDO 2012 Presidential Poster Competition Judge
2012 - 2015	Pfizer, Inc.	Review Committee: ASPIRE Young Investigator Awards in Endocrine Research
2012 - 2015	The Endocrine Society	Member, Clinical Endocrine Education Committee
2012 - present	Pediatric Endocrine Society	Member, Honors Committee
2013 - 2017	Pediatric Endocrine Society	Member, Maintenance of Certification Committee
2014 - 2017	Endocrine Society and Pediatric Endocrine Society	Official representative of Pediatric Endocrine Society to Endocrine Society's Clinical Practice Guidelines Revision Task Force for the Care of Transgender Individuals
2015 - 2016	Pediatric Endocrine Society	President-elect
2016 - 2017	Pediatric Endocrine Society	President
2017 - 2018	Pediatric Endocrine Society	Immediate Past President
2017 - 2018	Pediatric Endocrine Society	Chair, Honors and Awards Committee
2018 - 2019	Endocrine Society	Vice President, Clinical Scientist Position

2019 - present Endocrine Society

Member, Board of
Directors

SERVICE TO PROFESSIONAL PUBLICATIONS

1986 - present Reviewer, Journal of Clinical Endocrinology and Metabolism
 1987 - present Reviewer, Endocrinology
 1991 - 1993 Reviewer, DNA and Cell Biology
 1991 - 2000 Reviewer, Life Sciences
 1992 - present Reviewer, Diabetes
 1993 - 2008 Reviewer, Cancer Research
 1994 - present Reviewer, Molecular Endocrinology
 1995 - present Reviewer Journal of Cell Physiology
 1996 - 2000 Reviewer, Journal of Cell Biology
 1998 - 2008 Reviewer, Journal of Biological Chemistry
 2006 - present Reviewer, Journal of Pediatric Endocrinology and Metabolism
 2010 - present Reviewer, International Journal of Pediatric Endocrinology
 2015 - 2018 Associate Editor, Transgender health
 2015 - present Editorial Board Member, International Journal of Transgenderism

INVITED PRESENTATIONS - INTERNATIONAL

1984	7th International Congress of Endocrinology, Quebec, Canada	Lecture
1985	Symposium "Therapeutic Agents Produced by Genetic Engineering: Quo Vadis? - The Example of Growth Hormone and Its Releasing Factor", Toulouse, France,	Invited lectures (2)
1985	28 emes Journees Internationales Henri-Pierre Klotz D'Endocrinologie Clinique, Paris, France	Invited lecture
1986	1st International Congress of Neuroendocrinology, San Francisco	Invited lecture
1988	GRF Symposium, Sanofi Group, Paris, France	Invited lecture
1990	Serono Symposium "Major Advances in Human Female Reproduction", Rome, Italy	Invited lecture and Session chair
1990	3rd International Symposium on Molecular and Cellular Biology of Insulin and IGFs, Gainesville, FL	Poster
1991	2nd International Symposium on Insulin-Like Growth Factors/Somatomedins, San Francisco,	Posters (2)

1992	9th International Congress of Endocrinology, Nice, France	Poster
1993	4th International Symposium on Insulin, IGFs, and Their Receptors, Marine Biological Laboratory, Woods Hole, MA	Poster
1993	LWPES/ESPE Fourth Joint Meeting, San Francisco, CA	lecture, Poster, & Session chair
1994	The Third International Symposium on Insulin-Like Growth Factors, Sydney, Australia	Invited lecture
1994	AgResearch, Hamilton, New Zealand (lecture title: "Insulin-like Growth factors and Skeletal Muscle Differentiation")	Invited lecture and Visiting Professor
1994	Jacques Ducharme Annual Lectureship, University of Montreal, Canada	Invited lecture
1995	5th International Symposium on Insulin and IGFs, Gainesville, FL	Poster
1996	10th International Congress of Endocrinology, San Francisco, CA	Platform
1997	5th Joint Meeting of the European Society for Pediatric Endocrinology and the Lawson Wilkins Pediatric Endocrine Society, Stockholm, Sweden	Platform
1997	4th International Symposium on Insulin-like Growth Factors, Tokyo, Japan	Platform
1999	5th International Symposium on Insulin-like Growth Factors, Brighton, UK	Platform, Session chair, Member, Scientific Planning Committee
2000	Symposium Medicus Conference on Adolescent Medicine, Ixtapa, Mexico	Invited lectures (3)
2001	6th Joint Meeting of the European Society for Pediatric Endocrinology and the Lawson Wilkins Pediatric Endocrine Society, Montreal, Canada	Platform
2001	William Soler Children's Hospital, Havana, Cuba	Invited lecture and Visiting Professor
2002	First Joint Symposium GH-IGF 2002, Boston, MA	Platform
2002	2nd Cuban Symposium on Immunology of Diabetes, Havana, Cuba	Invited lecture

2005	Canadian Society of Endocrinology and Metabolism and Canadian Diabetes Association Annual Meeting, Edmonton, Alberta, Canada, (Pediatric Symposium on: Activating Mutations: Genetic Basis and Therapeutic Implications)	Invited lecture
2006	38th International Symposium: GH and Growth Factors in Endocrinology and Metabolism, Granada Spain, ["Hot Topics" session: Lecture title: "Nephrogenic Syndrome of Inappropriate Antidiuresis (NSIAD): A Paradigm for Activating Mutations Causing Endocrine Dysfunction]	Invited lecture
2006	Sanofi-Aventis, Paris, France, (Lecture title: "Potential Use of Selective V2 Vasopressin Receptor Antagonists as Inverse Agonists in the Treatment of Nephrogenic Syndrome of Inappropriate Antidiuresis")	Invited lecture
2006	Primary Insulin-like Growth Factor-I Deficiency (IGFD) International Advisory Board Meeting, Tercica, Inc., San Francisco, CA,	Invited speaker
2007	1er Simposio Argentino Noditropin Simplex en Endocrinologia Pediatrica, Punta del Este, Uruguay, (Lecture titles: "Primary IGF-I Deficiency"; and "Activating Mutations of the V2 Vasopressin Receptor")	Invited Plenary Lectures (2)
2007	GeNeSIS Investigators Meeting, Paris, France, (Panel : "Growth Attenuation: Current Concepts and Controversies")	Invited Panel Member
2007	Idiopathic Short Stature (ISS) Consensus Conference/International Meeting, Santa Monica, CA	Invited participant and Session chair
2008	5th Biennial Scientific Meeting of the Asia Pacific Pediatric Endocrine Society, Seoul, Korea, [Lecture title: "Nephrogenic Syndrome of Inappropriate Antidiuresis (NSIAD): Recent Insights"]	Invited Plenary Lecture
2009	Nordscience Forum (Novo Nordisk's International Scientific Meeting), Kyoto, Japan, (Lecture title: "Disorders of Water Balance and the Nephrogenic Syndrome of Inappropriate Antidiuresis")	Invited Plenary Lecture
2009	Osaka University, Osaka, Japan (Lecture title: "IGFs: Links to Cancer and Longevity")	Invited Lecture/Visiting Professor
2009	National Center for Child Health and Development, Tokyo, Japan (Lecture title: "Growth as a Barometer of Health")	Invited Lecture

2010	The Society for Pediatric Research/ Lawson Wilkins Pediatric Endocrine Society, Vancouver, Canada, ("Meet-the Professor" title: "Career Development: What's Next After Fellowship?")	Invited speaker/ "Meet-the Professor"
2011	9th Winter Symposium, Department of Child Health, Christian Medical College, Vellore, India (Lecture title: "Water & Sodium Balance: Current Concepts & Clinical Implications")	Invited Plenary Lecture
2011	World Professional Association for Transgender Health (WPATH) Biennial Symposium (International), Atlanta, GA	Invited speaker/ panel presentation
2012	1st St. Luke's International Conference on Pediatrics: Enhancing Pediatric Care with the Experts, Global City, Taguig City (Manila), Philippines (2 Lectures: "Gender Non-Conforming/Transgender Youth: Endocrine Considerations"; "Abnormalities of Puberty"; Case Discussant: "Disorders of Sex Development")	Invited Plenary Lectures
2013	World Professional Association for Transgender Health (WPATH) ICD-11 Consensus Meeting, San Francisco, CA	Invited Participant
2014	World Professional Association for Transgender Health (WPATH) Biennial Symposium, Bangkok, Thailand	Invited Symposium speaker
2014	Chulalongkorn University, Bangkok, Thailand (Lecture title: "Gender Nonconforming Transgender Youth: Endocrine Considerations")	Invited Lecture/Visiting Professor

INVITED PRESENTATIONS - NATIONAL

1983	The Endocrine Society Annual Meeting	Platform
1985	Endocrine Days, Seattle Washington	Invited lecture
1986	The Endocrine Society Annual Meeting	Platform
1987	The Clinical Research Center Program Directors' Biennial Meeting, NIH, Williamsburg, VA	Lecture
1987	Growth Disorders: Diagnostic and Therapeutic Dilemmas, Eli Lilly, Boston, MA	Invited lecture
1989	Society for Pediatric Research Annual Meeting	Poster
1990	Society for Pediatric Research Annual Meeting	Poster
1990	The Endocrine Society Annual Meeting	Poster
1990	American Academy of Pediatrics Postgraduate Course "Recent Advances in Endocrinology", Seattle, WA	Invited lectures (2)

1990	Eli Lilly Symposium "Roundtable Discussion Group on Current Issues in Pediatric Endocrinology", Dallas, TX	Invited lecture and Session chair
1991	NIH Workshop on Biological Consequences of Early Placental Loss, San Juan, Puerto Rico	Invited lecture
1991	The Endocrine Society Annual Meeting	Poster
1992	American Academy of Pediatrics Annual Meeting, San Francisco, CA	Invited lecture
1992	The Endocrine Society Annual Meeting	Poster
1994	The Endocrine Society Annual Meeting	Poster and Session chair
1994	Genentech National Cooperative Growth Study Symposium, Orlando, FL	Session Chair
1995	American Academy of Pediatrics, PREP: The Course, Santa Monica, CA	Invited lectures (2)
1995	The Endocrine Society Annual Meeting	Poster
1995	American Academy of Pediatrics, PREP: The Course, Minneapolis, MN	Invited lectures (2)
1997	The Endocrine Society Annual Meeting	Poster
1998	The Endocrine Society Annual Meeting	Poster
1999	The Endocrine Society Annual Meeting	Poster
2000	The Endocrine Society Annual Meeting	Poster and Session chair
2001	The Endocrine Society Annual Meeting	Poster
2002	The Endocrine Society Annual Meeting	Poster
2004	The Endocrine Society Annual Meeting	Poster
2003	Society for Women's Health Research: Fourth Annual Conference on Sex and Gene Expression, Winston-Salem, NC	Invited lecture and Session chair
2004	Society for Pediatric Research Annual Meeting	Poster
2005	The Endocrine Society Annual Meeting	Poster
2005	American Academy of Pediatrics, PREP: The Course, Miami, FL	Invited lectures (2)
2005	American Academy of Pediatrics, PREP: The Course, Portland, OR	Invited lectures (2)
2005	GeNeSIS Symposium and Investigators Meeting, Washington, D.C.	Session chair

2006	The Endocrine Society Annual Meeting, Boston, MA (Symposium lecture title: "How We Define IGF-I Deficiency")	Invited lecture
2006	The Endocrine Society's Clinical Endocrinology Update Course, San Francisco, CA (Lecture title/ "Meet-the-Professor": "Management of Type 2 Diabetes in Adolescence")	Invited lecture/ "Meet-the-Professor"
2006	Serono GH Monitor Investigator Meeting, Symposium on Disorders of Water Balance, San Francisco, CA, 2006	Invited Plenary Lecture
2007	The Endocrine Society Annual Meeting	Poster
2008	American Academy of Pediatrics, PREP: The Course, Tempe, AZ, 2008	Invited lectures (2)
2008	The Endocrine Society Annual Meeting	Poster
2008	Society for Pediatric Research Annual Meeting	Session Co-Chair
2008	Lawson Wilkins Pediatric Endocrine Society Annual Meeting	Session Co-Chair
2009	American Academy of Pediatrics, PREP: The Course, Savannah, GA	Invited lectures (2)
2009	The Endocrine Society Annual Meeting, Washington, DC (Lecture title/ "Meet-the-Professor": "Hyponatremia in Infants & Children")	Invited speaker/ "Meet-the-Professor"
2009	The Endocrine Society Annual Meeting	Poster
2009	American Academy of Pediatrics, PREP: The Course, Portland, OR	Invited lectures (2)
2009	Disorders of Sex Development (DSD) Research and Quality Improvement Symposium, University of Michigan Initiative on Rare Disease Research, Ann Arbor, MI	Invited participant
2010	The Endocrine Society Annual Meeting, San Diego, CA (Lecture title/ "Meet-the-Professor": "Hyponatremia in Infants & Children")	Invited speaker/ "Meet-the-Professor"
2010	American Academy of Pediatrics, NeoPREP, Newport Beach, CA	Invited lectures (2)
2012	45th Annual Advances & Controversies in Clinical Pediatrics, UCSF, San Francisco, CA (Lecture title: "Gender-Variant/Transgender Youth: Endocrine Considerations")	Invited lecture
2012	The Endocrine Society Annual Meeting	Session Co-Chair
2012	American Academy of Pediatrics, PREP: The Course, San Diego, CA	Invited Lecture and Case Presentations

2013	Miami Children's Hospital 16th Annual Pediatric Board Review Course	Invited Lecture and Case Presentations
2013	National Transgender Health Summit (sponsored by UCSF), Oakland, CA (Lecture title/"The Biology of Gender")	Invited Lecture and Panel Presentations
2013	Pediatric Endocrine Society Annual Meeting: Plenary Ethics Debate: "Approach to the Prepubertal Gender Non-Conforming Child: Should Intervention Attempt to Support the Assigned or Affirmed Gender?"	Program Chair and Speaker
2013	American Academy of Pediatrics, PREP: The Course, Portland, OR	Invited Lecture and Case Presentations
2013	The Endocrine Society Annual Meeting	Symposium Chair
2013	American Academy of Pediatrics: "Mind Matters for Pediatric Practitioners", San Francisco, CA (Lecture title: "Gender Nonconforming/ Transgender Youth: Endocrine Considerations")	Invited Lecture
2014	American Academy of Pediatrics, NeoPREP: An Intensive Review and Update of Neonatal/Perinatal Medicine, San Diego, CA (Lecture title: "Neontal Thyroid Disorders")	Invited lecture
2014	UCSF CME: Diabetes Update and Advances in Endocrinology and Metabolism (Lecture title: "Gender Nonconforming/ Transgender Youth: Endocrine Considerations")	Invited Lecture
2014	1st Annual Disorders of Sex Development-Translational Research Network (DSD-TRN)) and Accord Alliance (AAN) Workshop, Phoenix Children's Hospital, Phoenix, AZ	Invited participant
2014	Endocrine Society Annual Meeting	Symposia (2) Chair
2014	UCSF CME: Current Trends in DSD Management	Course Chair and Lecturer

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

1983	Pediatric Grand Rounds, John Muir Hospital, Veterans Administration Hospital, San Francisco, Santa Rosa Community Hospital, Fresno Valley Children's Hospital, University of the Pacific, Mt. Zion Hospital, Oak Knoll Naval Hospital	Invited lectures
1984	Pediatric Grand Rounds, UCSF	Invited lecture
1985	Pediatric Grand Rounds, UCSF	Invited lecture

1985	Western Society for Pediatric Research Annual Meeting	Platform
1986	Pediatric Grand Rounds, UCSF	Invited lecture
1987	Pediatric Grand Rounds, UCSF	Invited lecture
1989	Visiting Professor, University of Florida, Gainesville, FL	Invited lecture
1989	Visiting Professor, University of Pittsburgh, Pittsburgh, PA	Invited lecture
1989	Pediatric Grand Rounds, UCSF	Invited lecture
1990	Pediatric Grand Rounds, UCSF	Invited lecture
1992	Rocky Mountain Endocrine Society, Salt Lake City, UT	Invited lectures (2)
1993	Western Society for Pediatric Research Annual Meeting	Session Co-Chair
1993	Organization of Pediatric Endocrinologists of California, Sonoma, CA	Invited lecture
1993	Pediatric Grand Rounds, San Francisco General Hospital	Invited lecture
1994	Organization of Pediatric Endocrinologists of California, Yosemite, CA	Meeting Chair
1995	Pediatric Grand Rounds, San Francisco General Hospital	Invited lecture
1997	Visiting Professor, University of Utah, Salt Lake City, UT	Invited lecture
1998	Visiting Professor, University of Washington, Seattle, WA	Invited lecture
1998	American Academy of Pediatrics Annual Meeting, St. Petersburg, Florida	Invited lecture
1998	Genentech, Inc., South San Francisco, CA	Invited lecture
1998	Pediatric Grand Rounds, Fresno Medical Education Program	Invited lecture
1999	Pediatric Grand Rounds, UCSF	Invited lecture
2000	Natural Cooperative Growth Study (co-sponsored by University of Oregon and Genentech, Inc.), San Francisco, CA	Invited lecture
2000	"Advances and Changing Trends" (Pediatrics), The Lloyd Noland Foundation, Orlando, FL	Invited lectures (2)
2000	Michigan State Medical Society Annual Scientific Meeting, Detroit, MI	Invited Plenary Lecture
2000	Pediatric Grand Rounds, San Francisco General Hospital	Invited lecture

2001	UCSF Diabetes Center (Lecture title: "Insulin-like Growth Factors and Skeletal Muscle Differentiation")	Invited lecture
2002	"Ninth Annual Pediatrics Update", The Lloyd Noland Foundation, Hilton Head Island, SC	Invited lectures (3)
2003	Symposium Medicus Conference on Adolescent Medicine, Puerto Rico	Invited lectures (3)
2004	Pediatric Grand Rounds, UCSF (Lecture title: "Insulin-like Growth Factors: Not Really Like Insulin")	Invited lecture
2005	Endocrine Grand Rounds, UCSF (Lecture title: "Nephrogenic Syndrome of Inappropriate Antidiuresis")	Invited lecture
2005	Symposium Medicus Conference on Pediatrics, Yosemite, CA	Invited lectures (3)
2006	Pediatric Grand Rounds, Childrens Hospital Los Angeles, University of Southern California (Lecture title: "Nephrogenic Syndrome of Inappropriate Antidiuresis")	Invited lecture
2006	UCSF Diabetes Update and Advances in Endocrinology and Metabolism, "Nephrogenic Syndrome of Inappropriate Antidiuresis (NSIAD): A Paradigm for Activating Mutations Causing Endocrine Disease", San Francisco, CA	Invited lecture
2006	"Childhood Matters" Radio Show, "Diabetes in Childhood: Who's at Risk?", KISS-FM, San Francisco, CA	Invited speaker (radio)
2006	Pediatric Grand Rounds, Sutter Medical Center, Santa Rosa, CA (Lecture title: "Growth as a Barometer of Health")	Invited lecture
2006	Pediatric Grand Rounds, California Pacific Medical Center, San Francisco, CA (Lecture title: "Growth Hormone and IGF-I Treatment for Short Stature: Current Concepts and Controversies")	Invited lecture
2007	Pediatric Endocrine Grand Rounds, University of California Los Angeles (Lecture title: "Activating V2 Vasopressin Receptor Mutations")	Invited lecture
2007	UCSF Pediatric Diabetes Symposium: "Type 1 Diabetes: Primary and Secondary Prevention"	Invited lecture
2008	Pediatric Grand Rounds, University of Massachusetts, Baystate Children's Hospital: "Nephrogenic Syndrome of Inappropriate Antidiuresis (NSIAD): A Paradigm for Activating Mutations Causing Endocrine Dysfunction"	Invited lecture

2008	UCSF Pediatric Diabetes Symposium: "Can We Prevent Type 1 Diabetes? : Research Update"	Invited lecture
2008	Juvenile Diabetes Research Foundation, Hawaii Chapter, Honolulu, HI: "Update in Type I Diabetes Research: Honeymoon Prolongation and Primary Prevention"	Invited lecture
2009	Organization of Pediatric Endocrinologists of California, San Francisco, CA, "IGFs: Links to Cancer and Longevity"	Invited lecture
2009	Pediatric Grand Rounds, Marin General Hospital, San Francisco, CA, (Lecture title: "Growth Disorders: Current Concepts and Management")	Invited lecture
2009	Pediatric Grand Rounds, San Francisco General Hospital (Lecture title: "Gender Identity Disorder in Pre-Adolescents & Adolescents")	Invited lecture
2009	UCSF School of Medicine, Pediatric Interest Group: "Career Development in Pediatric Endocrinology"	Invited speaker
2010	Pediatric Grand Rounds, UCSF (Lecture title: "Gender Variant/ Transgender Youth: Endocrine Considerations")	Invited lecture
2010	Children's Hospital Oakland Research Institute, Oakland, CA, "Gender Variant/ Transgender Youth: Endocrine Considerations"	Invited lecture
2010	Symposium Medicus Conference on Pediatrics (Lecture titles: "Abnormalities of Puberty", "Update in Type 1 Diabetes", "Growth as a Barometer of Health") Kauai, Hawaii	Invited lectures (3)
2010	Gender Spectrum 4th Annual Family Conference (Lecture title: "The Use of Pubertal Blockers in Gender Variant Youth", Berkeley, CA	Invited lecture
2010	UCSF School of Medicine, Pediatric Interest Group: "Career Development in Pediatric Endocrinology"	Invited speaker
2010	UCSF Pediatric Noon Conference Series (Lecture title: "Neonatal Thyroid Disorders")	Invited lecture
2011	Pediatric Grand Rounds, Riley Hospital, University of Indiana, Indianapolis, IN, (Lecture title: "Gender Variant/Transgender Youth: Endocrine Considerations")	Invited lecture
2011	Pediatric Grand Rounds, Lucile Packard Children's Hospital, Stanford University, Stanford, CA, (Lecture title: "Gender Variant/Transgender Youth: Endocrine Considerations")	Invited lecture

2011	UCSF Pediatric Noon Conference Series (Lecture title: "Abnormalities of Puberty")	Invited lecture
2011	Gender Spectrum 5th Annual Family Conference (Lecture title: "The Biology of Gender"), Berkeley, CA	Invited lecture
2011	Gender Spectrum Professional's Workshop, Berkeley, CA ("The Use of Pubertal Blockers in Gender Variant Youth")	Invited speaker, panel presentation
2011	"Mind-the-GAP" Mental Health Professionals Workshop, Oakland, CA (Lecture title: "The Use of Pubertal Blockers in Gender Variant Youth")	Invited lecture
2011	8th Annual Great Plains Pediatric Endocrine Symposium (Lecture title: "Gender Variant/Transgender Youth: Endocrine Considerations")	Invited Plenary Lecture
2011	American Psychiatric Association (APA) Institutes on Psychiatric Services Annual Meeting (Presentation title: "The Child and Adolescent Gender Center: A UCSF/Community Collaborative")	Invited speaker, panel presentation
2011	UCSF School of Medicine, Pediatric Interest Group: "Career Development in Pediatric Endocrinology"	Invited speaker
2012	Warren Alpert Medical School of Brown University Adult and Pediatric Grand Rounds, Providence, RI (Lecture title: "Gender Variant/Transgender Youth: Endocrine Considerations")	Invited lecture
2012	Endocrine Grand Rounds, UCSF School of Medicine, Department of Medicine, Division of Endocrinology, San Francisco, CA (Lecture title: "Gender Non-Conforming/Transgender Youth: Endocrine Considerations")	Invited lecture
2012	Gender Spectrum 6th Annual Family Conference (Lecture title: "The Biology of Gender"), Berkeley, CA	Invited lecture
2012	Gender Spectrum 6th Annual Family Conference ("Safe Sports for Transgender Youth"; "Medical Panel: Concerns for Transgender Youth"), Berkeley, CA	Invited speaker, panel presentations
2012	Gender Spectrum Professional's Workshop, Berkeley, CA ("The Use of Pubertal Blockers in Gender Variant Youth")	Invited speaker
2012	UCSF School of Medicine, Pediatric Interest Group: "Career Development in Pediatric Endocrinology"	Invited speaker

2012	Pediatric Grand Rounds, Santa Clara Valley Medical Center, San Jose, CA (Lecture title: "Gender Non-Conforming/Transgender Youth: Endocrine Considerations")	Invited lecture
2013	Pediatric Grand Rounds, Children's Hospital of Philadelphia (CHOP), Philadelphia, PA, (Lecture title: "Gender Non-Conforming/Transgender Youth: Endocrine Considerations")	Invited lecture
2013	CHOP-Hospitals of the University of Pennsylvania (HUP) Combined Endocrine Grand Rounds, Philadelphia, PA, (Lecture title: "The Biology of Gender")	Invited lecture
2013	Pediatric Grand Rounds, Marin General Hospital, Greenbrae, CA (Lecture title: "Gender Nonconforming/Transgender Youth: Endocrine Considerations")	Invited lecture
2013	UCSF Trans Health Seminar	Invited lecture
2013	Pediatric Grand Rounds, John Muir Medical Center, Walnut Creek, CA (Lecture title: "Gender Nonconforming/Transgender Youth: Endocrine Considerations")	Invited lecture
2013	Grand Rounds, Children's Hospital & Research Center Oakland, Oakland, CA (Lecture title: "Gender Nonconforming/Transgender Youth: Endocrine Considerations")	Invited lecture
2013	Gender Spectrum 7th Annual Family Conference (Lecture title: "The Biology of Gender"), Berkeley, CA	Invited lecture
2013	Gender Spectrum Professional's Workshop, Berkeley, CA	Invited Lecture, Panel Presentations
2013	PFLAG, San Francisco Chapter	Invited speaker
2013	Expert Panel on Transgender Health for Adolescent Clients, Callen-Lorde Community Health Center, New York, NY	Invited speaker/panelist
2013	43rd Annual Fall Conference, Children's Hospital & Research Center Oakland, Monterey, CA (Lecture title: "Gender nonconforming/Transgender Youth: Endocrine Considerations")	Invited Lecture
2014	Medicine Grand Rounds, Beth Israel Medical Center, New York, NY (Lecture title: "Transgender Youth: Endocrine Considerations")	Invited Lecture
2014	UCSF Trans Health Seminar	Invited lecture

2014	Pediatric Grand Rounds and Visiting Professor, University of Wisconsin, Madison, WI (Lecture title: "Gender Nonconforming/Transgender Youth: Endocrine Considerations")	Invited Lecture and Visiting Professor
2014	Combined Adult/Pediatric Endocrine Grand Rounds, University of Wisconsin, Madison, WI (Lecture title; "The Biology of Gender")	Invited Lecture
2014	Kaiser Permanente CME: Transgender Care for the Pediatric Mental Health Provider (Lecture title: The Biology of Gender")	Invited Lecture/ Panelist
2014	Gender Spectrum 8th Annual Family Conference (Lecture title: "The Biology of Gender"), Moraga, CA	Invited lecture
2014	Gender Spectrum Professional's Workshop, Moraga, CA	Invited Lecture, Panel Presentations
2014	PFLAG Regional Convention, Napa, CA	Invited speaker
2014	47th Annual Clinical Advances in Pediatrics Symposium, Children's Mercy Hospital, Kansas City, MO (Lecture title: "Gender nonconforming/Transgender Youth: Endocrine Considerations")	Invited Keynote Address
2014	Endocrine Grand Rounds and Visiting Professor, University of Cincinnati Hospital Medical Center, Cincinnati, OH (Lecture title: Gender Nonconforming/Transgender Youth: Endocrine Considerations")	Invited Lecture and Visiting Professor

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

2006	The Endocrine Society Annual Meeting
2006	The Lawson Wilkins Pediatric Endocrine Society Annual Meeting
2007	The Endocrine Society Annual Meeting
2007	The Lawson Wilkins Pediatric Endocrine Society Annual Meeting
2008	The Endocrine Society Annual Meeting
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2014	Endocrine Society Annual Meeting
2015	Endocrine Society Annual Meeting
2015	The Pediatric Endocrine Society Annual Meeting

GOVERNMENT AND OTHER PROFESSIONAL SERVICE

1995 - 1995	USDA	Grant Review Panel
2006 - 2012	NIH/NIDDK, TrialNet Eligibility Committee	Member

UNIVERSITY AND PUBLIC SERVICE

SERVICE ACTIVITIES SUMMARY

As detailed above, the highlights of my service activities include the following: a) UCSF Campus-wide: I have served on the Committee for Human Research for 3 years was appointed to the UCSF LGBT Center of Excellence Task Force; b) School of Medicine: I was an inaugural lecturer in the 2nd year LifeCycle course and PISCES Preceptor for the 3rd year Pediatrics curriculum; c) Departmental Service: I have served on a variety of committees, most notably the Pediatric Ambulatory Clinic Operations Committee and the Pediatric Clinical Enterprise Committee. I served as the Pediatric Endocrine Clinic Director, the Pediatric Endocrine Director of the multi-disciplinary Disorders of Sex Development Clinic, and currently serve as Medical Director of the Child and Adolescent Gender Center. I also served as the Program Director for Pediatric Endocrinology Fellowship Training; and d) Public Service: My activities have focused on volunteering for the Visiting Nurses and Hospice program, volunteering for various Diabetes programs (family support groups, Diabetes camp, etc.), speaking at family conferences and professional workshops focused on the care of gender variant/ transgender youth and adolescents, and helping to raise money for financially challenged, promising figure skaters in the Bay Area.

UCSF CAMPUSWIDE

2000 - 2000	Search Committee for Division Chief, Reproductive Endocrinology	Member
2002 - 2003	Committee on Human Research	Member
2004 - 2006	Committee on Human Research	Member
2010 - 2010	Search Committee for Director, Mass Spectrometry Program	Member
2011 - present	UCSF LGBT Center of Excellence Task Force	Member

2012 - 2013	2013 National Trans Health Summit Planning Committee	Member
2014 - present	UCSF LGBT Leadership Collaborative on Education, Research, and Clinical Care	Member

SCHOOL OF MEDICINE

1994 - 2015	Various Ad hoc Promotion Review Committees	Member
1997 - 1999	Diabetes Center Planning Committee	Member
2002 - 2003	Life Cycle course, 2nd year Curriculum	Team Leader, Small Group Designer and Leader
2002 - 2015	Life Cycle course, 2nd year Curriculum	Lecturer (2)
2003 - 2007	Life Cycle course, 2nd year Curriculum	Small Group Designer and Leader
2004 - 2009	Foundations of Patient Care	Preceptor
2006 - 2007	UCSF Intersex Task Force	Member
2007 - 2014	Parnassus Integrated Student Clinical Experiences (PISCES), 3rd year Curriculum	Preceptor in Pediatrics (20 clinics/year)

SCHOOL OF DENTISTRY

2003 - 2015	Craniofacial Anomalies CFA 206	Lecturer
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DEPARTMENTAL SERVICE

1986 - 1987	Intern Selection Committee	Member
1992 - 1993	Moffitt Ward Education Committee	Member
1993 - 1994	Endocrinology/Neurology/Neurosurgery/Hematology/Oncology, Panel A, Subspecialty Outpatient Rotation	Director
1993 - 2014	Intern Selection Committee	Member
2000 - 2000	Search Committee, Faculty Member, Division of Pediatric Endocrinology	Member
2006 - 2007	UCSF High School Summer Internship program	Preceptor/ Mentor
2006 - 2015	Pediatric Endocrine Outpatient Services	Director
2008 - 2009	Karlsberger Steering Committee	Member

2008 - 2011	Pediatric Endocrinology Fellowship Training Program	Associate Program Director
2008 - present	Disorders of Sexual Development (DSD) Clinic	Pediatric Director
2009 - 2009	Ward Revision Task Force	Member
2009 - 2012	Outpatient Re-engineering Steering Committee	Member
2009 - 2010	Clinical Excellence Task Force, UCSF Pediatric Residency Program	Member
2010 - present	Child and Adolescent Gender Center	Medical Director and Steering Committee co-Chair
2011 - 2015	EPIC	"Superuser"
2012 - 2015	Pediatric Endocrinology Fellowship Training Program	Program Director
2012 - 2015	Pediatric Ambulatory Clinic Operations Committee	Member
2012 - 2015	Pediatric Clinical Enterprise Committee	Member

COMMUNITY AND PUBLIC SERVICE

1991 - 2000	Visiting Nurses and Hospice of San Francisco	Volunteer, 1 evening/week
1995 - 2013	Diabetes Youth Foundation's Bearskin Meadow Summer Camp	Medical volunteer, 1 week/ year
1995 - 2002	Adult Skating Program Committee, US Figure Skating Association	Member
1996 - 1996	March of Dimes Walk Steering Committee, San Francisco, CA	Member
2000 - 2001	Skating Club of San Francisco	Member, Board of Directors, and Vice-President
2002 - 2012	Numerous Bay Area Diabetes Family Support Groups	Invited speaker
2007 - present	Skate San Francisco (Figure Skating Competition)	Medical volunteer
2008 - 2012	Diabetes Youth Foundation Annual Figure Skating event	Medical volunteer and Skating Instructor

2009 - present	Ice Bridges, a non-profit corporation which assists financially challenged, promising figure skaters in the San Francisco Bay Area	Member, Board of Directors
2010 - present	Bay Area Family Support Groups and Mental Health Professional Workshops for Gender Variant/ Transgender Youth and Adolescents	Invited speaker

CONTRIBUTIONS TO DIVERSITY

CONTRIBUTIONS TO DIVERSITY

I began my work with the care of gender nonconforming/transgender youth in January, 2009, and led efforts to create the multi-disciplinary Child and Adolescent Gender Center (CAGC), which formally opened its doors in May, 2012. I serve as Medical Director of the CAGC, serving >1300 gender nonconforming/ transgender youth, and oversee all clinical and research activities of the CAGC.

TEACHING AND MENTORING

TEACHING SUMMARY

In my current role as Emeritus Professor on Recall, I supervise postdoctoral fellows, residents, and medical students during one clinic/week (5-6 hr/wk). In addition, my current teaching responsibilities include: Lecturer in the Medicine/Pediatrics combined Endocrinology Fellows Course (2 hr); In addition to my UCSF teaching responsibilities, my teaching includes lecturing at a number of symposia on transgender health.

FORMAL TEACHING

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	1986 - 2017	Adolescent Core Seminar Series 180.01C	Lecturer		
	2002 - 2015	Life Cycle, 2nd yr Med. Sch. Curr	Lecturer		Entire 2nd yr class
	2002 - 2007	Life Cycle, 2nd yr Med. Sch. Curr	Small Group Designer and Leader		25
	2003 - 2015	Craniofacial Anomalies CFA 206	Lecturer		
	2007 - 2014	Parnassus Integrated Student Clinical Experiences (PISCES), 3rd yr Med Sch Curr	Preceptor		1 student/ year

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2000 - 2009	Foundations of Patient Care IDS 132A	Preceptor		

INFORMAL TEACHING

1983 - 2015 Clinical: Weekly inpatient Pediatric Endocrine teaching conference: 1.5 hr/week x 48 weeks = 72 hr/year

1994 - present Clinical: Outpatient: Supervising/teaching: One clinic/week (5-6 hr) is a teaching clinic = 5-6 hr/week (including outpatient follow-up teaching) = 275 hr/year

MENTORING SUMMARY

I mentored Dr. Adi during his NIH K-08 Award in studies focused on understanding the molecular mechanisms through which Insulin-like Growth Factors influence the decision of skeletal myoblasts to proliferate or differentiate.

I mentored Dr. Cheung in clinical/translational studies investigating Aquaporin-2 excretion in the recently described Nephrogenic Syndrome of Inappropriate Antidiuresis.

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Program or School	Mentor Type	Role	Current Position
2003 - 2004	Dandan Liu	University of California, Berkeley		Supervised student for her Senior Honors Thesis	MD, Resident, UCSF
2007 - 2011	Linda Zhou, BS	Pre-doctoral student		Preceptor	Attending graduate school
2012 - 2012	Meaghan Pugh, RN, PNP	UCSF Advanced Practice Pediatric Nurse Practitioner Program		Clinical Preceptor	Clinical Practice
2013 - 2015	Tara Gonzalez	UC Berkeley-UCSF Joint Medical Program PRIME-US Program		Research Mentor	MS Class of 2015; MD Class of 2017

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
1983 - 1984	Elizabeth Schriock, M.D	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice, San Francisco, CA
1983 - 1984	David Harris, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assoc Clin Prof Pediatrics, U. of Utah, Salt Lake City
1983 - 1984	Leona Cuttler, M.D	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Professor and Chief of Pediatric Endocrinology, Case Western Reserve U., Cleveland, OH
1983 - 1984	Berthold Hauffa, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Professor of Pediatrics, Universitat Essen, Germany
1983 - 1984	Robert Lustig, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Professor of Clinical Pediatrics, UCSF
1983 - 1984	Klaus Rodens, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assoc Prof Pediatrics, U. of Ulm, Germany
1983 - 1984	J. Anthony Hulse, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Consultant Endocrinologist, St. Thomas Hospital, London

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
1983 - 1985	Catherine Egli, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Chief of Pediatric Endocrinology, San Francisco Kaiser Hospital
1984 - 1985	David Stephure, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assoc Prof Pediatrics and Chief of Pediatric Endocrinology, U. of Calgary, Canada
1984 - 1987	Bernard Silverman, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Former Assoc Prof and Chief of Ped Endo, Northwestern U., now Medical Director, Alkemes Inc.,
1984 - 1987	Jorge Daaboul, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Associate Professor of Pediatrics, U. of Florida, Gainesville, FL
1985 - 1987	Sharyn Solish, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice
1985 - 1988	Kenneth Attie, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Former Medical Director, Insmed Inc., Glen Allen, VA

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
1986 - 1988	Norbert Albers, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assoc Prof, Children's Hospital, U. of Bonn, Germany
1986 - 1989	Carol Hart, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Asst Clin Prof Pediatrics, UC, San Diego, CA
1987 - 1989	Nelson Ramirez, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Deceased during fellowship
1987 - 1989	Stephen Gitelman, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Professor of Clinical Pediatrics, UCSF
1988 - 1988	Gregory Glasscock, Ph.D., M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Neonatologist
1988 - 1989	Carol Ishimatsu, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice, Downey, CA
1988 - 1989	Wen-Yu Tsai, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assoc Prof of Pediatrics, Director, Pediatric Endocrinology, National Taiwan U.

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
1988 - 1988	Sushma Kaul, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Asst Clin Prof Pediatrics, Hackensack Medical Center, New Jersey
1989 - 1991	Klaus Hartmann, M.D.	Post-Doc Research Fellow		Laboratory Research Preceptor	Asst Prof Pediatrics, U. of Frankfurt, Germany
1989 - 1992	Juan Sanchez, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assoc Prof Pediatrics, Indiana U. Medical Center, Indianapolis
1990 - 1992	Henry Rodriguez, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Associate Professor
1990 - 1993	David Paul, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Chief of Pediatric Endocrinology, David Grant Medical Center, Travis AFB, Sacramento, CA; Asst Clin Prof Pediatrics, UC, Davis
1990 - 1993	Lawrence Silverman, M.D.	Clinical and Research Fellow		Clinical and Laboratory Preceptor	Asst Prof Pediatrics, RWJ-UMDNJ, Chief of Ped Endo, Morristown Mem. Hosp.

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
1991 - 1994	Floyd Barry, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Training Chief for Pediatrics, McLennan Family Practice Residency Program, Waco, TX
1991 - 1994	Pat Mahachoklertwattana, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assoc Prof Pediatrics; Chief of Pediatric Endocrinology, Mahidol U., Bangkok, Thailand
1993 - 1996	Debra Devoe, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Asst Clin Prof Pediatrics, U. Southern California and Los Angeles Children's Hospital, CA
1993 - 1996	David Geller, M.D., Ph.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Asst Prof Pediatrics, UCLA Cedars-Sinai Medical Center, Los Angeles, CA
1994 - 1996	Sudha Mootha, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Asst Prof Clin Pediatrics, U. Texas Southwestern Medical Center, Dallas
1994 - 1997	Saleh Adi, M.D.	Clinical and Research Fellow		Clinical and Laboratory Preceptor	H. S. Professor of Pediatrics, UCSF

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
1996 - 1999	Valérie Schwitzgebel, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Professor of Pediatrics, U of Geneva, Switzerland
1996 - 1998	Bassam Bin-Abbas, M.D.	Clinical and Research Fellow		Clinical and Laboratory Preceptor	Asst Prof Pediatrics, King Faisal U, Riyadh, Saudi Arabia
1998 - 1999	Peter Contini, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice, Moraga, CA
1998 - 2001	Louise Greenspan, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Pediatric Endocrinology, San Francisco Kaiser Hospital; Asst Clin Prof Pediatrics, UCSF
1998 - 2001	Jane Lee, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Clinical Research Scientist, Genentech Inc., South San Francisco, CA
1999 - 2002	Susan Conrad, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Formerly Attending Endocrinologist, Oakland Children's Hospital, Oakland, CA; Now in Private Practice

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2000 - 2002	Chaluntorn Preeyasombat, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Asst Prof Pediatrics, Ramathibadi Hospital, Mahidol U., Bangkok Thailand
2001 - 2003	Nicola Tiffin, Ph.D.	Post-Doc Research Fellow		Laboratory Research Preceptor	Research Scientist, University of Western Cape, South Africa
2001 - 2004	Heidi Gassner, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Chief of Pediatric Endocrinology, Sacramento Kaiser Hospital
2002 - 2005	Qing Dong, M.D., Ph.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Chief of Pediatric Endocrinology, Chinese Hospital, San Francisco; Clinical Assistant Professor of Pediatrics, UCSF
2003 - 2007	Gary Meyer, Ph.D.	Post-Doc Research Fellow		Laboratory Research Preceptor	Private Industry
2003 - 2006	Eric Huang, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Attending Physician, Pediatric Endocrinology, Morristown Hospital, New Jersey

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2004 - 2006	Brian J. Feldman, M.D., Ph.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assist. Prof of Pediatrics, Stanford U
2004 - 2006	Clement Cheung, M.D., Ph.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assistant Adjunct Professor of Pediatrics, UCSF
2004 - 2007	Maureen A. Su, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assistant Professor, Dept. of Pediatrics, U. of North Carolina
2005 - 2007	Andrew Bremer, M.D., Ph.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assistant Professor of Pediatrics, Vanderbilt University, Nashville, TN
2005 - 2008	Sayali Ranadive, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Attending Formerly Endocrinologist, Oakland Children's Hospital, Oakland, CA; Now in Private Practice
2005 - 2007	Roger Long, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Asst Clinical Professor, UC Davis Medical Cntr

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2006 - 2009	Alison Reed, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Attending Pediatric Endocrinologist, California Pacific Medical Center, San Francisco, CA
2007 - 2010	William Charlton, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Attending Physician, Joe DiMaggio Children's Hospital, Broward County, FL
2007 - 2010	Ivy Aslan, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Attending Endocrinologist, Oakland Children's Hospital, Oakland, CA
2008 - 2009	Jennifer Cordier, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice
2008 - 2010	Taninee Sahakitrungruang, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assistant Prof of Pediatrics, Chulalongkorn U, Bangkok, Thailand
2009 - 2011	Jenise Wong, M.D., Ph.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Instructor, UCSF

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2009 - 2012	Thu Ho, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice
2009 - 2012	Anjali Jain, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice
2010 - 2013	Andrea Gerard Gonzalez, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assistant Professor of Pediatrics, Barbara Davis Diabetes Center, Denver, CO
2010 - 2013	Lisa Taylor, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Private Practice
2010 - 2016	Stanley Vance, Jr., MD	Resident in Pediatrics; then Clinical Fellow, Adolescent Medicine		Research Mentor	Assistant Professor, UCSF
2011 - 2014	Amy Mugg, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2011 - 2014	Sara Moassesfar, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2012 - 2015	Priya Prahalad, M.D., Ph.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assistant Professor, Stanford University
2012 - 2015	Joshua Tarkoff, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Clinical practice
2012 - 2015	Paula Jossan, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Clinical practice
2013 - 2014	Vanita Jindal, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Clinical practice
2013 - 2016	Nicholas Heiniger, M.D.	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Clinical practice
2013 - 2016	Stanley Vance, Jr., M.D.	Clinical Fellow, Adolescent Medicine		Research Mentor	Assistant Professor, UCSF
2014 - present	Eric Bomberg, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2015 - 2019	Janet Lee, MD, MPH	Clinical Fellow, Pediatric Endocrinology		Clinical and Research Mentor	Instructor, UCSF

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2015 - 2017	Liat Perl, MD	Clinical Fellow, Pediatric Endocrinology		Clinical and Research Mentor	In Training, Israel
2016 - 2019	Ayca Cakmak, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2016 - 2019	Alyssa Huang, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	Assistant Professor, University of Washington
2017 - present	Armaiti Mody, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2017 - present	Jenny Zabinsky, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2018 - present	Fatema Abdul Hussein, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2018 - present	Hannah Chesser, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2018 - present	Caroline Schulmeister, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor and Research Mentor	In Training

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2019 - present	Isabella Niu, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor	In Training
2019 - present	Abby Cobb-Walch, MD	Clinical Fellow, Pediatric Endocrinology		Clinical Preceptor and Research Mentor	In Training

FACULTY MENTORING

Dates	Name	Position while Mentored	Mentor Type	Mentoring Role	Current Position
2010 - 2011	Clement Cheung, M.D., Ph.D.	Assistant Professor		Preceptor/ mentor for Aquaporin-2 research project and manuscript preparation	Assistant Adjunct Professor of Pediatrics, UCSF
2016 - 2017	Ensile Lee, MD	Assistant Professor, Korea		Preceptor/mentor in Child and Adolescent Gender Center	Assistant Professor, Korea
2016 - present	Stanley Vance, Jr., MD	Assistant Professor		Research Mentor	Assistant Professor, UCSF
2019 - present	Janet Lee, MD	Instructor		Research Mentor	Instructor, UCSF

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

My current research is focused on optimizing multidisciplinary care for transgender youth. I am currently serving as Principal Investigator (Multiple PI format) of an NIH/NICHD R01 focused on Early Medical Treatment of Transgender Youth, and as co-Investigator on two additional NIH R01's focused on transgender youth.

My prior research has included both basic science and clinical investigation. My laboratory work has focused on two aspects of hormone receptor signaling. First, we extended our work in Insulin-like Growth Factor (IGF)-I receptor signaling to studies in human neuroblastoma (NBL). Specifically, we have explored the role of IGF signaling in the growth, motility, and invasiveness of human NBL cells. In collaborative studies with UCSF investigators from Pediatric Oncology, Neurology, Internal Medicine, and Radiation Oncology, we have observed

that small molecule inhibitors of the IGF-I receptor block growth, survival, and motility of NBL cells, and inhibit NBL growth in vivo in a xenograft model in nude mice. A manuscript summarizing portions of this work has been published in the Journal of Cellular Biochemistry. This work has been supported by a grant from the Thrasher Research Fund with matching funds from the UCSF Cancer Center. I also received, as Principal Investigator, a Basic Research grant for our work regarding IGF-I signaling in neuroblastoma from the John A. Kerner, M.D. Research Foundation. Also as Principal Investigator, I have received a Basic Research grant from ImClone Systems, Inc., to examine the therapeutic potential of a humanized monoclonal anti-IGF-I receptor antibody and radiation in neuroblastoma.

In addition, we have recently identified and characterized novel activating mutations in the vasopressin V2 receptor (V2R) that cause a Syndrome of Inappropriate Antidiuretic Hormone (SIADH)-like phenotype, yet without detectable ADH. We have named this syndrome “Nephrogenic Syndrome of Inappropriate Antidiuresis” (NSIAD), and have reported our findings in New England Journal of Medicine 352:34-40, 2005 (co-first-author). I have been engaged in collaborative studies to extend our characterization of NSIAD, with three specific aims: 1) explore further the molecular mechanisms responsible for the constitutive activity of the vasopressin V2R mutants, 2) further characterize the clinical phenotype of NSIAD patients and heterozygous carriers, and 3) explore the potential role of selective vasopressin V2R “inverse agonists” as a targeted treatment for this condition. This work has been carried out in collaboration with investigators from the Departments of Psychiatry and Cellular and Molecular Pharmacology at UCSF, the Department of Biochemistry, Division of Cell Signaling and Molecular Pharmacology, at the University of Montreal, and the Department of Medicine, University of Colorado School of Medicine. A manuscript summarizing this work with respect to V2R trafficking was published in Molecular Pharmacology, 2010, and a manuscript summarizing this work with respect to urinary aquaporin-2 excretion in this syndrome has just been submitted for publication.

With respect to clinical investigation, I have been an investigator in studies related to Type 1 Diabetes, studies related to growth disorders, and studies related to disorders of sex development (DSD). With respect to Type 1 Diabetes, I served as co-Investigator for TrialNet, a multi-center NIH-sponsored study focused on developing therapies to prevent Type 1 Diabetes Mellitus in high risk individuals. I have been co-Investigator on the TrialNet Natural History of Type 1 Diabetes study and on five intervention studies for patients with newly diagnosed Type 1 Diabetes : 1) TrialNet Mycophenolate Mofetil-Dacluzimab (MMF-DZB), 2) TrialNet Rituximab, 3) TrialNet CTLA-4 Ig, 4) Immune Tolerance Network Phase II trial of hOKT3 gamma1 (Ala-Ala), and 5) Immune Tolerance Network trial of thymoglobulin. In addition, I have been Principal Investigator at UCSF for the TrialNet Nutritional Intervention to Prevent (NIP) Type 1 Diabetes study examining the therapeutic potential of docosahexaenoic acid, an omega-3 fatty acid, in individuals at high-risk for developing this disorder, and am co-Investigator in the TrialNet Oral Insulin Prevention Trial.

With respect to growth disorders, I have served as the UCSF-site Principal Investigator for a multi-center trial investigating the therapeutic potential of recombinant human IGF-I for prepubertal children with Growth Hormone (GH) resistance.

With respect to studies of DSD, I have served as co-Principal Investigator for a NIH/ NICHD R01 multi-center study entitled “Disorders of Sex Development: Platform for Basic and Translational Research”. The focus of this project has been to develop a multi-site infrastructure to support hypothesis-based research on the mechanisms of sexual development and evidence-based care for patients with DSD and their families.

Effective April 1, 2011, I completed my basic laboratory work, shifting my research focus exclusively to clinical research. As noted above, my current research is focused on optimizing medical care of transgender youth, with particular emphasis on mental health and skeletal health outcomes of current treatment models.

RESEARCH AWARDS - CURRENT

1. 1R01HD082554-01A1	Principal Investigator (Multiple PI format)	20 % effort	Rosenthal (PI)
NIH/ NICHD		08/01/2015	06/30/2020
The Impact of Early Medical Treatment in Transgender Youth		\$ 952,542 direct/yr 1	\$ 5,732,531 total
This is a multicenter study which will be the first in the U.S. to evaluate the long-term outcomes of medical treatment for transgender youth. This study will provide essential, evidence-based information on the physiological and psychosocial impact, as well as safety, of hormone blockers and cross-sex hormones use in this population.			
2.	Principal Investigator	5 % effort	Rosenthal (PI)
San Francisco Department of Public Health		07/01/2017	06/30/2022
UCSF Child and Adolescent Gender Center		\$ 325,000 direct/yr 1	\$ 1,625,000 total
Transgender Youth Support Program			
To develop outreach and provide multidisciplinary services for transgender youth in the city of San Francisco			
Overall supervisor and consultant			
3. R01MH115349	Co-Investigator	10 % effort	Hong (PI)
NIH/ NIMH		07/01/2018	06/30/2023
Sex Hormone effect on Neurodevelopment: Controlled puberty in transgender adolescents			
This will be the first study of its kind to directly investigate longitudinal brain anatomy in young adolescents with gender dysphoria (GD). The study will utilize an innovative, cross-disciplinary approach that takes advantage of sophisticated imaging modalities to elucidate the interaction between sex hormone therapies and brain anatomy and connectivity in youth. Results from this interdisciplinary proposal will directly impact clinical care for individuals with GD and provide a much-needed empirical foundation for understanding the longitudinal impact of treatments that are already being used in clinical settings.			
Co-Investigator			
4. R01HD097122	Co-Investigator	3 % effort	Ehrensaft (PI)
NIH/ NICHD		03/21/2019	02/29/2024
Gender Nonconformity in Prepubescent Children: A Longitudinal Study			

This project is a prospective longitudinal observational study of pre-pubertal children who are gender-nonconforming and their care. It is a four-site study involving U.S.-based university affiliated pediatric gender clinics. With a targeted N of 320 subjects, the objective of the proposed research is to provide evidence-based data to inform clinical care for prepubescent transgender and gender-nonconforming children (TGNC).

Co-Investigator

RESEARCH AWARDS - PAST

1.	Site Principal investigator		
	NIH: Clinical Associate Physician, General Clinical Research Center	1984	1987
	Growth Hormone Releasing Hormone in Hypopituitarism		
2.	Principal investigator		
	Academic Senate Committee on Research, University of California San Francisco	1987	1988
	Insulin-like Growth Factors and Childhood Growth Disorders		
3.	Principal Investigator		
	Grant Award, School of Medicine, Research Evaluation and Allocation Committee, University of California San Francisco	1987	1988
	Insulin-like Growth Factors and Childhood Growth Disorders		
4.	Principal Investigator		
	NIH/NICHD: Clinical Investigator Award	1988	1991
	Insulin-like Growth Factors and Childhood Growth Disorders		
5.	Principal Investigator		
	March of Dimes: Basil O'Connor Starter Scholar Research Award	1989	1992
	Insulin-like Growth Factors and Childhood Growth Disorders		
6.	Principal Investigator		
	Academic Senate Committee on Research, University of California San Francisco	1991	1992
	Insulin-like Growth Factors and Skeletal Muscle Differentiation		

7.	Principal Investigator		
	March of Dimes: Basic Research Grant	1992	1994
	Insulin-like Growth Factors and Skeletal Muscle Differentiation		
8.	Principal Investigator		
	NIH/NIDDK: FIRST Award	1992	1997
	Insulin-like Growth Factors and Skeletal Muscle Differentiation		\$ 350,000 total
9.	Principal Investigator		
	March of Dimes: Basic Research Grant	1995	1997
	Insulin-like Growth Factors and Skeletal Muscle Differentiation		\$ 101,150 total
10.	Principal Investigator		
	March of Dimes: Basic Research Grant	1997	1999
	Insulin-like Growth Factors and Skeletal Muscle Differentiation		\$ 106,396 total
11.	Principal investigator		
	R01 DK44181		
	NIH/NIDDK	1998	2003
	IGFs and Skeletal Muscle Differentiation		\$ 659,648 total
12.	Co-Principal Investigator		
	HOE 9011/4030		
	Aventis	2003	2004
	Morning Lantus vs. Intermediate-Acting Insulin in Adolescents with Type1 DM		\$ 58,316 total
13.	Principal Investigator		
	Pfizer: Translational Basic Research Award	2003	2004

IGFs and Skeletal Muscle: Implications for Myotherapy \$ 15,000 total

14.	Co-Principal Investigator		
Thrasher Research Fund	2005	2009	
Targeted agents that synergize with radiation in high risk neuroblastoma		\$ 300,000 total	
15.	Principal Investigator		
Tercica, Inc.	2005	2009	
Recombinant Human Insulin-Like Growth Factor-I (rhIGF-I) Treatment of Short Stature Associated with Primary IGF-I Deficiency: A Multicenter, Open-Label, Randomized Concentration Controlled Trial		\$ 57,000 total	
16.	Principal Investigator		
John A. Kerner, M.D. Foundation: Basic Research Award	2005	2009	
Small Molecule Inhibitors of the IGF-I Receptor as a Potential Treatment for Neuroblastoma		\$ 41,500 total	
17. 556830-26226	co-PI		
NIH/NIAID	2005	2013	
Thymoglobulin for treatment of new onset Type 1 Diabetes			
18. Basic Research Award	Principal Investigator		
ImClone Systems, Inc.	2009	2011	
The Therapeutic Potential of A12 Anti-IGF-IR Antibody and Radiation in Neuroblastoma	\$ 84,000 direct/yr 1		
19. 23988-10	co-PI		
NIH/NIDDK	2009	2013	
UCSF TrialNet			

20. 1R01HD068138-01A1	Site Principal Investigator	5 % effort	Vilain, Sandberg (PI)
NIH/NICHD		09/26/2111	06/30/2016
Disorders of Sex Development: Platform for Basic and Translational Research		\$ 639,688 direct/yr 1	\$ 3,198,340 total
21.	Principal Investigator	0 (See description, below) % effort	Rosenthal (PI)
NIH/CTSI; Internal Award UCSF		06/01/2018	05/31/2019
<p>Bone Density, Structure, and Estimated Strength in Transgender Youth Receiving Pubertal Suppression in Early Puberty</p> <p>Minimal data exist on the skeletal effects of puberty suppression in early pubertal transgender youth. This longitudinal cohort study assessed bone mineral density by dual-energy x-ray absorptiometry and bone microarchitecture and strength by high-resolution peripheral quantitative computed tomography, as well as bone turnover markers, body composition, vitamin D status, weight-bearing exercise, and dietary calcium intake. These data will lead to longer-term studies and investigations of interventions to mitigate the expected lag in skeletal development during pubertal suppression. Ultimately, this research should positively contribute to the clinical care of transgender youth. This funding supported the above-noted studies carried out by postdoctoral fellow, Janet Y. Lee, MD, MPH.</p> <p>Principal Investigator</p>			

PEER REVIEWED PUBLICATIONS

1. Rosenthal SM, Reid IA, Kaplan SL, Grumbach MM: Renin substrate depletion in salt-losing congenital virilizing adrenal hyperplasia: low plasma renin activity despite increased renin concentration.. J Pediatr 102:80-82, 1983.
2. Rosenthal SM, Grumbach MM, Kaplan SL: Gonadotropin-independent familial sexual precocity with premature Leydig and germinal cell maturation ("familial testotoxicosis"): effects of a potent luteinizing hormone-releasing factor agonist and medroxyprogesterone acetate therapy in four cases. J Clin Endocrinol Metab 57:571-579, 1983.
3. Rosenthal SM, Schriock EA, Kaplan SL, Guillemin R, Grumbach MM: Synthetic human pancreas growth hormone-releasing factor (hpGRF 1-44-NH2) stimulates growth hormone secretion in normal men. J Clin Endocrinol Metab 57:677-679, 1983.
4. Schriock EA, Lustig RH, Rosenthal SM, Kaplan SL, Grumbach MM: Effect of growth hormone (GH)-releasing hormone (GRH) on plasma GH in relation to magnitude and duration of GH deficiency in 26 children and adults with isolated GH deficiency or multiple pituitary hormone deficiencies: evidence for hypothalamic GRH deficiency. J Clin Endocrinol Metab 58:1043-1049, 1984.

5. Egli CA, Rosenthal SM, Grumbach MM, Montalvo JM, Gondos B: Pituitary gonadotropin-independent male-limited autosomal dominant sexual precocity in nine generations: familial testotoxicosis. *J Pediatr* 106:33-40, 1985.
6. Gondos B, Egli CA, Rosenthal SM, Grumbach MM: Testicular changes in gonadotropin-independent familial male sexual precocity. *Arch Pathol Lab Med* 109:990-995, 1985.
7. Rosenthal SM, Hulse JA, Kaplan SL, Grumbach MM: Exogenous growth hormone inhibits growth hormone-releasing factor-induced growth hormone secretion in normal men. *J Clin Invest* 77:176-180, 1986.
8. Hulse JA, Rosenthal SM, Cuttler L, Kaplan SL, Grumbach MM: The effect of pulsatile administration, continuous infusion, and diurnal variation on the growth hormone (GH) response to GH-releasing hormone in normal men. *J Clin Endocrinol Metab* 63:872-878, 1986.
9. Rosenthal SM, Kaplan SL, Grumbach MM: Short-term continuous intravenous infusion of growth hormone (GH) inhibits GH-releasing hormone-induced GH secretion: a time-dependent effect. *J Clin Endocrinol Metab* 68:1101-1105, 1989.
10. Hartmann K, Papa V, Brown EJ, Rosenthal SM, Goldfine ID: A rapid and simple one-step method for isolation of Poly (A)+ RNA from cells in monolayer. *Endocrinology* 127:2038-2040, 1990.
11. Rabinovici J, Dandekar P, Angle M, Rosenthal SM, Martin M: Insulin-like growth factor I (IGF-I) levels in follicular fluid from human preovulatory follicles: correlation with serum IGF-I levels. *Fertil Steril* 54:428-433, 1990.
12. Rosenthal SM, Brunetti A, Brown EJ, Mamula PW, Goldfine ID: Regulation of insulin-like growth factor I (IGF-I) receptor expression during muscle cell differentiation: potential autocrine role of IGF-II. *J Clin Invest* 87:1212-1219, 1991.
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4. Rosenthal S, Cohen P, Clayton P, Backeljauw P, Bang P, Ten S: Treatment perspectives in Idiopathic Short Stature with a focus on IGF-I deficiency (Guest Editor: Rosenfeld RG). *Pediatr Endocrinol Rev* Volume 4, Suppl 2: 251-271, 2007.
5. Rosenthal SM: Treatment approaches for growth failure: Statement 4: Therapy should be offered to children with idiopathic short stature (ISS) whose heights are <-2.25 standard deviation (SD) score: Evidence pro and con. *Pediatr Endocrinol Rev* Volume 5, Suppl 3:847-52, 2008.
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OTHER PUBLICATIONS

1. Gitelman SE, Feldman BJ, Rosenthal SM: Nephrogenic syndrome of inappropriate antidiuresis – Reply (Letter). N Engl J Med 355:530, 2005.
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SIGNIFICANT PUBLICATIONS

1. Feldman BJ*, Rosenthal SM*, Vargas GA, Fenwick RG, Huang EA, Matsuda-Abedini M, Lustig RH, Mathias RS, Portale AA, Miller WL, Gitelman SE: Nephrogenic syndrome of inappropriate antidiuresis. *N Engl J Med* 352:34-40, 2005.

* Denotes co-first author

I was co-first author on this publication. I recognized that a child, suspected to have a primary renal salt-losing condition, instead had a problem of disordered water balance, and oversaw an evaluation (clinical and laboratory) which ultimately led to the discovery of a novel activating mutation of the V2 vasopressin receptor (V2R) in one of the first of two patients with this previously undescribed disorder. In addition, I co-supervised the data analysis and co-wrote the manuscript.

2. Huang EA, Feldman BJ, Schwartz ID, Geller DH, Rosenthal SM, Gitelman SE: Oral urea for the treatment of chronic syndromes of inappropriate antidiuresis in children. *J Pediatr* 148:128-131, 2006.

I co-supervised the study design and data analysis and co-wrote the manuscript.

3. Meyer GE, Chesler L, Liu D, Youngren J, Goldfine ID, Weiss WA, Matthay KK, Rosenthal SM: M Nordihydroguaiaretic acid inhibits insulin-like growth factor signaling, growth and survival in human neuroblastoma cells. *J Cell Biochem* 102:1529-1541, 2007.

I co-designed the studies, supervised the experiments in my laboratory, oversaw the data analysis, and co-wrote the manuscript.

4. Rosenthal S, Cohen P, Clayton P, Backeljauw P, Bang P, Ten S: Treatment perspectives in Idiopathic Short Stature with a focus on IGF-I deficiency (Guest Editor: Rosenfeld RG). *Pediatr Endocrinol Rev* Volume 4, Suppl 2: 251-271, 2007

I was the principal author in the data analysis and in the writing of the manuscript.

5. Ranadive SA, Ersoy E, Favre H, Cheung CC, Rosenthal SM, Miller WL, Vaisse C: Identification, characterization and rescue of a novel vasopressin-2 receptor mutation causing nephrogenic diabetes insipidus. *Clin Endocrinol* epub ahead of print: 2008, Dec. 18.

I contributed to experimental study design and co-wrote the manuscript.

6. Rochdi MD, Vargas GA, Carpentier E, Oligny-Longpre G, Chen S, Kavoor, A, Gitelman SE, Rosenthal SM, von Zastrow M, Bouvier M: Functional characterization of vasopressin type 2 receptor substitutions (R137H/C/L) leading to nephrogenic diabetes insipidus and nephrogenic syndrome of inappropriate antidiuresis: Implications for treatments. *Mol Pharmacol* 77:836-845, 2010.

I proposed the collaboration and contributed to the experimental design and the writing of the manuscript.

7. Cheung CC, Cadnaphapornchai MA, Ranadive SA, Gitelman SE, Rosenthal SM. Persistent elevation of urine aquaporin-2 during water loading in a child with Nephrogenic Syndrome of Inappropriate Antidiuresis (NSIAD) caused by a R137L mutation in the V2 vasopressin receptor. *J Int J Pediatr Endocrinol* 3:1-6, 2012

I proposed the study, co-designed the experiments, oversaw the data analysis, and co-wrote the manuscript.

CONFERENCE ABSTRACTS

1. Note: The following are abstracts from the year 2000 onward:

Wu, NY, Adi S, Rosenthal SM: The proliferative and differentiation responses to IGF-I in skeletal myoblasts are influenced by cell density. The Endocrine Society, 2000.

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3. Adi S, Wu NY, Rosenthal SM: The Role of the MAPK(Erk1/2) Pathway in mediating the switch in IGF-I action from inhibition to stimulation of myogenic differentiation. Sixth Joint Meeting of the European Society for Pediatric Endocrinology and the Lawson Wilkins Pediatric Endocrine Society, Montreal, Canada. 2001.
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5. Tiffin N, Adi S, Wu NY, Rosenthal SM: Akt phosphorylation is insufficient and Erk1/2 dephosphorylation is necessary for IGF-induced myogenesis. First Joint Symposium GH-IGF 2002, Boston, MA, 2002.
6. Meyer GE, Gable K, Liu D, Youngren J, Goldfine ID, Rosenthal SM: Small molecule inhibitors of the insulin-like growth factor I receptor block neuroblastoma growth, survival, and motility. The Endocrine Society, 2004.
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12. Ranadive SA, Ersoy B, Favre H, Cheung CC, Rosenthal SM, Miller WL, Vaisse C: A novel V2 vasopressin receptor (V2R) mutation causing X-linked Nephrogenic Diabetes Insipidus (NDI). The Endocrine Society, 2008.
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