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 Talbott, Tamasyne Reeves, Jaquice Tate, John
 Does 1-2, Jane Doe, and Equality California*

**UNITED STATES DISTRICT COURT
 CENTRAL DISTRICT OF CALIFORNIA**

AIDEN STOCKMAN; NICOLAS
 TALBOTT; TAMASYN REEVES;
 JAQUICE TATE; JOHN DOES 1-2;
 JANE DOE; and EQUALITY
 CALIFORNIA,

Plaintiffs,

v.

DONALD J. TRUMP, et al.

Defendants.

CASE NO. 5:17-CV-01799-JGB-KK

**DECLARATION OF JOSHUA D.
 SAFER, MD, FACP IN SUPPORT
 OF PLAINTIFFS' JOINT
 OPPOSITION TO MOTION TO
 DISSOLVE THE PRELIMINARY
 INJUNCTION**

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STATE OF CALIFORNIA,
Plaintiff-Intervenor,
v.
DONALD J. TRUMP, et al.
Defendants.

1 I, Joshua D. Safer, declare as follows:

2 1. I make this declaration based on my own personal knowledge.

3 **PROFESSIONAL BACKGROUND**

4 2. I am a Staff Physician in the Department of Medicine at the Mount
5 Sinai Hospital and Mount Sinai Beth Israel Medical Center in New York, NY. I
6 serve as Executive Director of the Center for Transgender Medicine and Surgery at
7 Mount Sinai. I also hold an academic appointment as Senior Faculty in Mount
8 Sinai's Icahn School of Medicine. A true and correct copy of my CV is attached
9 hereto as Exhibit A.

10 3. I am Board Certified in Endocrinology, Diabetes and Metabolism by
11 the American Board of Internal Medicine, and I have been since 1997.

12 4. I graduated from the University of Wisconsin in Madison with a
13 Bachelor of Science in 1986. I earned my Doctor of Medicine degree from the
14 University of Wisconsin in 1990. I completed intern and resident training at
15 Mount Sinai School of Medicine, Beth Israel Medical Center in New York, New
16 York from 1990 to 1993. From 1993 to 1994, I was a Clinical Fellow in
17 Endocrinology at Harvard Medical School and Beth Israel Deaconess Medical
18 Center in Boston, Massachusetts. I stayed at the same institution, serving as a
19 Clinical and Research Fellow in Endocrinology under Fredric Wondisford, from
20 1994 to 1996.

21 5. Since 1997, I have evaluated and treated patients along with
22 conducting research in endocrinology. Since 2004, the patient care and research
23 has been the medicine/science specific to transgender individuals. I have led
24 several other programs either in transgender medicine or in general endocrinology.
25 In particular, I served as Medical Director of the Center for Transgender Medicine
26 and Surgery, Boston Medical Center, Boston, MA (2016-2018); as Director of the
27 Medical Education, Endocrinology Section, Boston University School of
28 Medicine, Boston, MA (2007-2018); as Program Director of the Endocrinology

1 Fellowship Training, Boston University Medical Center, Boston, MA (2007-2018);
2 and as Director of the Thyroid Clinic, Boston Medical Center, Boston, MA (1999-
3 2003).

4 6. I have authored or coauthored 71 papers in peer-reviewed journals,
5 including many critical reviews; textbook chapters; and case reports in
6 endocrinology and transgender medicine.

7 7. I have served as a Transgender Medicine Guidelines Drafting Group
8 Member for the International Olympic Committee (“IOC”) since 2017.

9 8. I currently serve as the President of the United States Professional
10 Association for Transgender Health (USPATH). I am also Secretary and Co-Chair
11 of the Steering Committee of TransNet, the International Consortium for
12 Transgender Medicine and Health Research. I have served in several other
13 leadership roles in professional societies related to endocrinology and transgender
14 health. These societies include the Alliance of Academic Internal Medicine, the
15 American College of Physicians Council of Subspecialty Societies, the American
16 Board of Internal Medicine, the Association of Program Directors in
17 Endocrinology and Metabolism, and the American Thyroid Association.

18 9. Since 2014, I have held various roles as a member of the World
19 Professional Association for Transgender Health (“WPATH”), the leading
20 international organization focused on transgender health care. WPATH has over
21 1,000 members throughout the world and is comprised of physicians, psychiatrists,
22 psychologists, social workers, surgeons, and other health professionals who
23 specialize in the diagnosis and treatment of transgender individuals. From 2016 to
24 the present I have served on the Writing Committee for Standards of Care for the
25 Health of Transsexual, Transgender, and Gender Nonconforming People.

26 10. I have served in various roles as a member of the Endocrine Society
27 since 2014. I served as a Task Force member to develop the Endocrine Treatment
28 of Transgender Persons Clinical Practice Guideline from 2014 to 2017. As part of

1 this task force of nine experts, a methodologist, and a medical writer, I contributed
2 to the “Endocrine Treatment of Gender-Dysphoria/Gender Incongruent Persons:
3 An Endocrine Society Clinical Practice Guideline,” (“Endocrine Society
4 Guidelines”).¹ These were an update to the “Endocrine Treatment of Transsexual
5 Persons: An Endocrine Society Clinical Practice Guideline,” published by the
6 Endocrine Society in 2009.

7 11. I served in the Wisconsin Army Reserve National Guard from 1987 to
8 1990 and remained in the Army Reserve until 1995. This service made me
9 sympathetic to the unique needs of servicemembers and reflected my support for
10 the military as an institution. Since then, I have continued to devote a significant
11 part of my career to assisting people in the military and veterans, including from
12 2001 to 2006 when I served as a Staff Physician at the Veterans Administration
13 Boston Health Care System in Boston, Massachusetts.

14 **CONSULTING FOR THE DEPARTMENT OF DEFENSE WORKING**
15 **GROUP BEFORE RELEASE OF THE OPEN SERVICE POLICY**

16 12. In 2014 and 2015, the Department of Defense (“DOD”) began a
17 review of whether transgender people should be permitted to serve openly in the
18 Armed Forces. In July 2015, then-Secretary of Defense Ashton Carter issued an
19 order establishing a Working Group to carry out the analysis of this issue. It is my
20 understanding that the Working Group met to discuss issues relating to military
21 service by transgender people over the course of about a year, consulting
22 personnel, training, readiness, and medical specialists from across the Department
23 of Defense.

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26 ¹ Wylie C. Hembree, Peggy T. Cohen-Kettenis, Lous Gooren, Sabine E.
27 Hannema, Walter J. Meyer, M. Hassan Murad, Stephen M. Rosenthal, Joshua D.
28 Safer, Vin Tangpricha & Guy T’Sjoen, “Endocrine Treatment of Gender-
Dysphoria/Gender-Incongruent Persons: An Endocrine Society Clinical Practice
Guideline,” *The Journal of Clinical Endocrinology & Metabolism*, Vol. 102, pp.
3869-3903 (Nov. 2017).

1 The Working Group also consulted civilian medical professionals of which I was
2 one. To assist the Working Group, I went to the Pentagon to advise the Working
3 Group, answered questions from military and civilian leadership, and provided
4 advice on endocrinology and transgender health.

5 **CONSULTING FOR THE DEPARTMENT OF DEFENSE PANEL OF**
6 **EXPERTS**

7 13. Following his July announcement to the public over Twitter, President
8 Donald Trump released a memorandum (“August 25 Memorandum”) containing a
9 formal directive to the current Secretary of Defense, Secretary James N. Mattis,
10 and the Secretary of Homeland Security that, among other things, required the
11 Secretary of Defense, in consultation with the Secretary of Homeland Security, to
12 “submit to [the President] a plan for implementing” the ban on service by
13 transgender people within six months.

14 14. Secretary Mattis, in turn, set up a process for “developing an
15 Implementation Plan on military service by transgender individuals, in which the
16 Deputy Secretary of Defense and the Vice Chairman of the Joint Chiefs of Staff
17 would be “supported by a panel of experts” (the “Review Panel”).

18 15. I reprised my earlier role as an advisor to the Working Group by
19 serving as one of the outside expert consultants for the Review Panel. On
20 November 9, 2017, Dr. Jillian Shipherd, a Clinical Psychologist and Director of the
21 LGBT Health Program at the Veterans Health Administration; Dr. Loren
22 Schechter, Visiting Clinical Professor of Surgery at the University of Illinois in
23 Chicago and Director of the Center for Gender Confirmation Surgery at Weiss
24 Memorial Hospital in Chicago; and I met with the Review Panel. About 15 to 20
25 people were present. Some of them were the same people who were on the
26 Working Group conducted under Secretary of Defense Ashton Carter.

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1 **A. COSTS**

2 16. After some preliminary discussion, costs of medical care for
3 transgender service members did not appear to be a big concern for the Review
4 Panel because the cost figures associated with transgender military health services
5 were so low relative to the costs of other health conditions and to the overall
6 military health budget.

7 **B. DEPLOYABILITY**

8 17. The Review Panel’s main focus was deployability, and in particular,
9 the impact of hormone treatment on deployability. The Review Panel members
10 also wanted information regarding how long an already-serving member of the
11 Armed Forces would have to be on leave, nondeployable, or on limited duty as a
12 result of initiating or being on hormone therapy as part of transgender medical
13 treatment. In response to questions and in discussions, I stated that based on
14 current research, I believe that the initiation of hormone therapy or being on
15 hormone therapy would not prevent a servicemember from carrying out their
16 military duties.

17 18. Secretary Mattis’s February 22 Memorandum to the President cites
18 the Endocrine Society Guidelines that I worked to develop to say that a person
19 needs blood work to be done by a laboratory every 90 days for the first year of
20 hormone therapy.² This is a misrepresentation of what my colleagues and I wrote
21 in the Endocrine Society Guidelines. The Endocrine Society Guidelines suggest
22 that clinicians measure hormone levels during treatment to ensure that
23 “administered sex steroids are maintained in the normal physiologic range for the
24 affirmed gender.”³ They also state, “We suggest regular clinical evaluation for
25 physical changes and potential adverse changes in response to sex steroid

26
27 ² Pages 22 and 33.

28 ³ Para. 3.3.

1 hormones and laboratory monitoring of sex steroid hormone levels every 3 months
2 during the first year of hormone therapy for transgender males and females and
3 then once or twice yearly.”⁴

4 19. The language we used made clear this was just a *suggestion*, not a
5 requirement. The 3-month schedule is one that facilitates a relatively rapid dose
6 advancement regimen within medically accepted standards. But that is not to say
7 that a slower regimen would be less safe or not medically acceptable.

8 20. The Guidelines were written to aid endocrinologists in providing care
9 for transgender patients. They do not state mandatory or essential treatment
10 protocols.

11 21. When it is not practicable to perform quarterly blood work in the first
12 year of hormone therapy, the patient’s medication may simply be maintained at the
13 prescribed level. The quarterly blood work is not necessary care. A doctor should
14 check blood work after changing a patient’s dose, but if a deployed service
15 member cannot have a doctor check blood work, a patient can be maintained at the
16 last known safe dose with no negative health consequences and no impact on
17 readiness.

18 22. When I met with the Review Panel, I explained that while hormone
19 therapy is necessary medical treatment for some transgender patients, temporarily
20 (even for up to a 12 month deployment period where laboratory monitoring was
21 not available) freezing the level of hormones a service member receives does not
22 risk any provision of inadequate treatment; nor does it pose any medical or mental
23 health risks *per se*.

24 23. The February 22 Memorandum is not consistent with the statements
25 and recommendations I made when I met with the Review Panel.

26 24. There is no genuine issue regarding whether hormones can be taken
27 into the field just as other medications are. Hormone therapies do not generally

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⁴ Para. 4.1.

1 require special care or treatment such as refrigeration. There are versions that are
2 stable and transportable.

3 25. A person receiving hormone therapy is in a steady state with
4 hormones within weeks. There are no negative mental health consequences
5 associated with not changing those levels for an extended period of time once a
6 person's levels are in steady state.

7 26. The February 22 Memorandum states that "the available information
8 indicates that there is inconclusive scientific evidence that the serious problems
9 associated with gender dysphoria can be fully remedied through transition-related
10 treatment and that, even if it could, most persons requiring transition-related
11 treatment could be non-deployable for a potentially significant amount of time."⁵
12 As an expert in the field of endocrinology and transgender health, I do not agree
13 with this statement. My remarks to the Review Panel are not consistent with that
14 conclusion.

15 **C. LETHALITY**

16 27. The Review Panel was also interested in lethality. I believe, and so
17 stated, that there is no known correlation between hormone levels and lethality.

18 **CONCLUSION**

19 28. The February 22 Memorandum does not reflect the recommendations
20 that I made to the Review Panel. As an expert qualified in the field of
21 endocrinology and transgender health, it is my opinion that the February 22
22 Memorandum does not reflect the established scientific literature in this area.
23 Based on my understanding of current data, statements that transgender people will
24 be limited in their readiness to deploy based on hormone therapy needs are
25 incorrect.

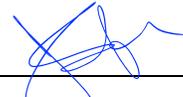
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⁵ Page 35.

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

DATED: April 24, 2018



Joshua D. Safer, M.D.

EXHIBIT A

CURRICULUM VITAE

Joshua D. Safer, MD, FACP

March 1, 2018

Office Address: 17 E. 102nd Street, Room D-240

New York, NY 10128

Tel: (212) 241-5484

E-mail: jsafer0115@gmail.com

Academic Training

1990 MD University of Wisconsin School of Medicine, Madison, WI
1986 BS University of Wisconsin, Madison, WI, Economics

Postdoctoral Training

1994-1996 Clinical and Research Fellow, Endocrinology, under Fredric Wondisford, Harvard Medical School and Beth Israel Deaconess Medical Center, Boston, MA
1993-1994 Clinical Fellow, Endocrinology, Harvard Medical School and Beth Israel Deaconess Medical Center, Boston, MA
1990-1993 Intern and Resident, Department of Medicine, The Mount Sinai School of Medicine, Beth Israel Medical Center, New York City, NY

Academic Appointments

2018-present Senior Faculty, Icahn School of Medicine at Mount Sinai, New York, NY
2006-2018 Associate Professor of Medicine and Molecular Medicine, Boston University School of Medicine
1999-2006 Assistant Professor of Medicine, Boston University School of Medicine
1996-1999 Instructor in Medicine, Harvard Medical School
1993-1996 Fellow in Medicine, Harvard Medical School

Hospital Appointments

2018-present Staff Physician, Department of Medicine, The Mount Sinai Hospital, New York City, NY
2018-present Staff Physician, Department of Medicine, Mount Sinai Beth Israel Medical Center, New York City, NY
1999-2018 Staff Physician, Department of Medicine, Boston University Medical Center, Boston, MA
2001-2006 Staff Physician, Veterans Administration Boston Health Care System, Boston, MA
1996-1999 Staff Physician, Department of Medicine, Beth Israel Deaconess Medical Center, Boston, MA
1990-1993 House Staff, Department of Medicine, Beth Israel Medical Center, New York City, NY

Other Medical Staff Appointments

2004-2013 Staff Physician, Massachusetts Institute of Technology Medical Center, Cambridge, MA
1994-1999 Physician, Adult Urgent Care, Harvard Vanguard Medical Associates, Boston, MA
1987-1996 Captain, United States Army Reserve, Medical Corps

Joshua D. Safer, MD, FACP**Honors:**

2017	Lesbian, Gay, Bisexual and Transgender Health Award, Massachusetts Medical Society
2012	Outstanding Service Award, Association of Program Directors in Endocrinology and Metabolism
2007	Fellow, American College of Physicians
2004	Boston University School of Medicine Outstanding Student Mentor Award
2001	Abbott Thyroid Research Advisory Council Award
1996	Knoll Thyroid Research Clinical Fellowship Award, Endocrine Society
1995	Trainee Investigator Award for Excellence in Scientific Research, American Federation for Clinical Research (AFCR)
1994	Trainee Investigator Award for Excellence in Scientific Research, AFCR
1990	The University of Wisconsin Medical Alumni Association Award
1988-1990	Senior Class President, University of Wisconsin, School of Medicine

Licensure and Certification

1997	Board Certification in Endocrinology, Diabetes and Metabolism, American Board of Internal Medicine, recertified 2007, 2017
1994	Board Certification in Internal Medicine, American Board of Internal Medicine, recertified 2007
1993	MA License Registration #77459
1990	New York License Registration #187263-1

Departmental and University Committees***Boston Medical Center***

2016-2018	Physician Satisfaction Task Force, Department of Medicine
2016-2018	Transgender Patient Task Force
2006-2017	Pharmacy and Therapeutics Committee, Health Net Plan

Boston University School of Medicine

2009-2018	Admissions Committee
2005	Review Committee, Department of Medicine Pilot Project Grants
2000	Residency and Fellowship Core Curriculum Committee,
2000-2018	Internship Selection Committee, Residency Program in Medicine

Boston University Goldman School of Dental Medicine

2003-2018	Course Directors Committee, Goldman School of Dental Medicine
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Teaching Experience and Responsibilities***Tufts University School of Medicine***

2016-2018	Lecturer in Endocrinology, Second-year Pathophysiology Course
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Boston University School of Medicine

March 1, 2018

Joshua D. Safer, MD, FACP

2003-2018 Course Director, Disease and Therapy - Endocrinology Section
1999-2018 Regular lectures to medical students, residents, and fellows on thyroid disease, diabetes insipidus, and transgender medicine

Boston University Goldman School of Dental Medicine

2002-2018 Course Director, General Medicine and Dental Correlations
2002-2018 Course Director, Medical Concerns in the Dental Patient

Major Mentoring Activities**Physician Career/Peer Advising**

Year	Mentee	Most Recent Title
1995-present	Cohen, Ron, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Associate Professor of Medicine and Interim Chief, Division of Endocrinology, University of Chicago School of Medicine
1999-present	Tangpricha, Vin, MD, PhD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Associate Professor of Medicine and Program Director, Endocrinology Fellowship, Emory University School of Medicine
2003-present	McDonnell, Marie, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Director, Inpatient Diabetes Service, Brigham and Women's Hospital
2003-present	Arum, Seth, MD Ongoing career guidance.	<ul style="list-style-type: none"> ▪ Faculty, Endocrinology Section, University of Massachusetts Medical Center
2004-present	Ananthakrishnan, Sonia, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Evans Educator, Endocrinology Section, Boston University Medical Center
2007-present	Vimalananda, Varsha, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Faculty, Endocrinology Section, Boston University Medical Center and Boston VA Hospital
2008-present	Port, Ava, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Faculty, Endocrinology Section, University of Maryland Medical Center
2009-2013	Choong, Karen, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Private Practice, MA
2009-2010	Kannan, Subramanian, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Completed Endocrinology Fellowship Cleveland Clinic
2010-present	Spitzer, Matthew, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Private Practice, Amherst, MA
2011-present	Steenkamp, Devin, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Faculty, Endocrinology Section, Boston University Medical Center
2014-present	Thomas, Dylan, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Endocrinology Fellow, Department of Medicine, Boston University Medical Center
2017-present	Korpaisarn, Sira, MD Ongoing career guidance	<ul style="list-style-type: none"> ▪ Endocrinology Fellow, Department of Medicine, Boston University Medical Center

Student Research Mentor and/or Thesis Advisor

Year	Mentee	Most Recent Title
1996-1997	Martin, Andrew Used DNA manipulation and tissue culture techniques to analyze <i>in vitro</i> functional impact of thyroid hormone resistance mutations.	▪ Matriculated University of Virginia September, 1997
1998	Wong, Jenny Used DNA manipulation and tissue culture techniques to analyze <i>in vitro</i> functional impact of thyroid hormone resistance mutations.	▪ Matriculated Harvard College September, 1998
1998	Song, Hyang Yeon Used DNA manipulation and tissue culture techniques to analyze <i>in vitro</i> functional impact of thyroid hormone resistance mutations.	▪ Graduated Mount Holyoke College
1999-2001	Fraser, Lisa Used DNA manipulation and tissue culture techniques to analyze <i>in vitro</i> functional impact of thyroid hormone resistance mutations. Learned and performed tissue culture assays in order to assess thyroid hormone action on skin cell lines. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals.	▪ Working in biotechnology
2000	Hoa, Michael Learned and performed tissue culture assays in order to assess thyroid hormone action on skin cell lines. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals.	▪ Matriculated Boston University School of Medicine September, 2000
2001-2004	Crawford, Tara Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals.	▪ Works in recruitment for Ross Medical School
2003-2004	Vaghasia, Pramil Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines	▪ Graduated Boston University, 2004
2003	Ladhani, Anil Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Graduated Boston University, 2004
2003	Belardo, Sheila Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Graduated Boston University, 2005

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Year	Mentee	Most Recent Title
2004	Mohan, Shaulnie Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Graduated Boston University, 2005; matriculated Boston University School of Medicine
2004	Patel, Nathan Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Graduated Boston University, 2005
2004	Sharma, Aman Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Graduated Boston University, 2005; matriculated SUNY-Downstate School of Medicine
2006-2007	Holland (now Rogers), Kathryn Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals. Learned and performed in vivo methodologies with mice. Coauthored a publication from the data.	▪ Graduated Boston University, 2005; working as a school teacher
2006-2008	Huang, Max Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals. Learned and performed in vivo methodologies with mice. First authored a poster presented at a national meeting. First authored a publication from the data.	▪ MS from Boston University; matriculated medical school
2006-2008	Mehta, Meetal Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines. Coauthored a publication from the data.	▪ MS from Boston University; matriculated medical school
2006-2007	O'Mara, Rosemary Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals. Learned and performed in vivo methodologies with mice. Coauthored a publication from the data.	▪ BA from Boston University

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Year	Mentee	Most Recent Title
2007	Abuzahra, Hilal Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals. Learned and performed in vivo methodologies with mice. Coauthored a publication from the data.	▪ MS from Boston University; matriculated Boston University School of Medicine
2007	Tannenbaum, Andrew Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals. Learned and performed in vivo methodologies with mice. Coauthored a publication from the data.	▪ MS from Boston University; matriculated Boston University School of Medicine
2007-2008	Yoo, David Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2007-2008	Pagano, Joe Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2007-2009	Bhakit, Mena Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals. Learned and performed in vivo methodologies with mice. Coauthored a publication from the data.	▪ MS from Boston University; matriculated medical school
2007-2008	Chan, Yvonne Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University; matriculated graduate school
2007-2008	Lee, Monica Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2007-2008	Grasso, Victoria Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2007-2008	Bokhari, Matthew Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ BA from Boston University

Joshua D. Safer, MD, FACP

Year	Mentee	Most Recent Title
2008-2010	Watto, Matthew Career guidance.	▪ Matriculated Temple University Internal Medicine Residency Program
2008-2011	Agee, Erin Master's Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2009-2010	Wang, Yun Master's Research and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2009-2011	Nishtala, Arvind Research Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Matriculated Medical School, Boston University
2009-2010	Chen, Bridgett Master's Research Project and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Matriculated Medical School, Albany Medical College
2009	Esochaghi, Sorochi Master's Research Project and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2009-2011	Kim, Kyeonghee Master's Research and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2010-2011	Faruqi, Adnan Master's Research Project and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2010-2011	Fink, Kyle Master's Research Project and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Matriculated Medical School at New York Medical College

Joshua D. Safer, MD, FACP

Year	Mentee	Most Recent Title
2010-2011	Heath, Alyson Master's Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2010-2011	Mouchati, Alex Master's Research and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines. First authored an abstract at a local meeting.	▪ MS from Boston University
2010-2011	Porter, Drew Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ BS from Boston University
2010	Rosenbaum, Lucy Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Matriculated Boston University School of Medicine
2011-2012	Stratton, Michael Master's Research and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ Matriculated Boston University School of Medicine
2011-2012	Feeley, Brigid Master's Research and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2011-2012	Gonzales, Christopher Master's Research and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2011-2012	Mahmood, Sundis Master's Research and Thesis Advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University

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Year	Mentee	Most Recent Title
2011-2012	Berman, Reena Research and undergraduate thesis advisor. Assisted in design and implementation of experiments to assess thyroid hormone action on the skin of animals. Learned and performed in vivo methodologies with mice. First authored a poster presentation at a local meeting from the data.	▪ BA from Boston University
2011-2012	Dwivedi, Sashank Research advisor. Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ BA from Boston University
2012-2013	Carey, Katelyn Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2012-2013	Moroney, James Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2012-2013	Sayed, Sabina Learned and performed tissue culture/gene expression/protein expression assays in order to assess thyroid hormone action on skin cell lines.	▪ MS from Boston University
2012-present	Meyers, Steven Developed and analyzed clinical data sets for quality projects and research projects in Transgender Medicine. First author of two publications.	▪ BS from Hampshire College
2012-present	Gardner, Ivy Learned and performed tissue culture/gene expression/protein expression assays in order to assess androgen action on endometrial cell lines. First author of data presented at two meetings. First author of publication.	▪ MD from Boston University; matriculated general surgery residency
2012-2013	Bonzagni, Anthony Developed and analyzed data for research projects in Transgender Medicine.	▪ MS from Boston University
2012-2014	Ma, Peter Developed and analyzed data for research projects in Transgender Medicine.	▪ BS from Boston University
2013-present	Fong, Elias Developed and analyzed data for research projects in Transgender Medicine.	▪ BS from Boston University

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Year	Mentee	Most Recent Title
2013-present	Weinand, Jamie Developed and analyzed data for research projects in Transgender Medicine. First author of data presented at two meetings. First author of publication.	▪ MD from Boston University; matriculated family medicine residency
2014-present	Eriksson, Sven Developed and analyzed data for research projects in Transgender Medicine. First author of publication.	▪ MS from Boston University; matriculated medical school
2015-present	Liang, Jennifer Developed and analyzed data for research projects in Transgender Medicine. First author of two publications	▪ Medical Student at Boston University
2015-present	Lu, Simon Developed and analyzed data for research projects in Transgender Medicine. Publication co-author	▪ MD from Boston University; matriculated obstetrics-gynecology residency
2015-present	Qian, Ray Developed and analyzed data for research projects in Transgender Medicine. First author of publication.	▪ Medical Resident at Boston University Medical Center
2016-present	Kailas, Maya Developed and analyzed data for research projects in Transgender Medicine. First author of publication.	▪ Medical Student at Boston University
2016-present	Jolly, Divya Developed and analyzed data for research projects in Transgender Medicine. Manuscript in progress	▪ Medical Anthropology Graduate Student at Boston University
2016-present	Chan, Kelly Developed and analyzed data for research projects in Transgender Medicine. Manuscript in progress	▪ Masters Student at Harvard University
2017-present	Park, Jason Developed and analyzed data for research projects in Transgender Medicine. Manuscript in progress	▪ Medical Student at Boston University
2017-present	Bisson, Jason Developed and analyzed data for research projects in Transgender Medicine. Manuscript in progress	▪ College Student at Northeastern University

Major Administrative Responsibilities

2018-present	Executive Director, Center for Transgender Medicine and Surgery, Mount Sinai Health System, New York City, NY
2016-2018	Medical Director, Center for Transgender Medicine and Surgery, Boston Medical Center, Boston, MA
2007-2018	Director, Medical Education, Endocrinology Section, Boston University School of Medicine, Boston, MA
2007-2018	Program Director, Endocrinology Fellowship Training, Boston University Medical Center, Boston, MA
1999-2003	Director, Thyroid Clinic, Boston Medical Center, Boston, MA

Other Professional Activities**Professional Societies: Memberships**

2016-present	United States Professional Association for Transgender Health (USPATH)
2014-present	World Professional Association for Transgender Health (WPATH)
2007-present	Association of Program Directors in Endocrinology and Metabolism (APDEM)
2007-present	Association of Specialty Professors (ASP), Alliance of Academic Internal Medicine (AAIM)
1999-present	American Association of Clinical Endocrinologists
1998-present	American Thyroid Association
1995-present	Endocrine Society
1994-present	American College of Physicians
1994-1996	American Federation for Medical Research
1993-present	MA Medical Society

Professional Societies: Offices Held and Committee Assignments**International*****International Olympic Committee (IOC)***

2017-present	Drafting Group Member, Medical Guidelines, International Olympic Committee
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World Professional Association for Transgender Health (WPATH)

2016-present	Writing Committee Member, Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People
2016-present	Co-Chair, Scientific Committee, International Meeting, Buenos Aires - 2018
2015-2016	Chair, Scientific Committee, International Meeting, Amsterdam - 2016
2015-present	Task Force Member, Global Education Initiative
2015-present	Media Liaison

TransNet – International Consortium for Transgender Medicine and Health Research

2014-present	Secretary and Co-Chair, Steering Committee
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National

United States Professional Association for Transgender Health (USPATH)

2018-present President

Alliance of Academic Internal Medicine

2016-present Chair, Compliance Committee
2016-2017 Committee member, Compensation
2015-2016 President, Association of Specialty Professors (ASP)
2014-2017 Council member
2014-present Task Force member, Program Planning
2014-present Work Group member, Survey Center
2013-2015 Chair, Program Planning Committee, ASP
2012-2017 Council member, ASP
2012-2013 Chair, Membership Services Committee, ASP
2010-2015 Chair, Program Directors Site Visit Training Seminar, ASP
2007-2013 Committee member, Membership Services, ASP

American College of Physicians

2016-present Council of Subspecialty Societies member

Endocrine Society

2017-present Advisory Board member, Transgender/Disorders of Sex Development
2017-present Committee member, Clinical Endocrine Education
2014-present Media Liaison for Transgender Medicine
2014-2017 Task Force member, Endocrine Treatment of Transgender Persons Clinical Practice Guideline

American Board of Internal Medicine

2013-present Task Force member, Endocrinology Procedures
2013 Task Force member, ASP/AAIM/ACGME/ABIM Joint Next Accreditation System Internal Medicine Subspecialty Milestones

Association of Program Directors in Endocrinology and Metabolism

2017-present Secretary-Treasurer
2012-present Task Force member, Next Accreditation System Endocrinology Milestones
2011-2012 Task Force member, Procedures Accreditation
2010-2012 Council member
2009-2016 Chair, Site Visit/Curriculum Web-Toolbox Committee

American Thyroid Association

2006-2009 Publications Committee member
2004 Program Committee member

Editorships and Editorial Boards

2018-present Associate Editor, *Transgender Health*
2017-present Editorial Advisory Board, *Endocrine News*

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2016-present Transgender Section Co-Editor, *UpToDate*
2015-present Editorial Board, *Transgender Health*
2015-present Editorial Board, *International Journal of Transgenderism*
2013-present Associate Editor, *Journal of Clinical & Translational Endocrinology*
2007-present Editorial Board, *Endocrine Practice*

External Medical Advising and Consulting

International

2016-present International transgender athlete guidelines, Medical and Scientific Commission, International Olympic Committee

National

2017-present Transgender medical and surgical treatment, National Collegiate Athletic Association,
2017-present Safety for transgender medical treatment, Food and Drug Administration, United States
2015-present Transgender workforce and military readiness, Department of Defense, United States
2014 Transgender prison population health, Federal Bureau of Prisons, United States

Regional

2011-present Transgender prison population health, Massachusetts Department of Correction

Past Other Support

2015-2016 R13 HD084267, **Multi-PI: Joshua D. Safer**, TransNet: Developing a Research Agenda in Transgender Health and Medicine
2014-2015 Boston Foundation, Equality Fund, **PI: Joshua D. Safer**, Pilot Program to Educate Physicians in Transgender Medicine
2013-2014 Evans Foundation, **PI: Joshua D. Safer**, A Pilot Curriculum in Transgender Medicine
2001-2003 Thyroid Research Advisory Council, **PI: Joshua D. Safer**, Thyroid Hormone Action on Skin
2001-2002 Evans Foundation, **PI: Joshua D. Safer**, Thyroid Hormone Action on Skin
1996-2001 K08 DK02423, **PI: Joshua D. Safer**, Characterization of Central Resistance to Thyroid Hormone

Conferences Organized

International Conferences

World Professional Association for Transgender Health (WPATH)

June, 2018 Bi-annual meeting, Scientific Co-Chair, Buenos Aires, Argentina (scheduled)

June, 2016 Bi-annual meeting, Scientific Co-Chair, Amsterdam, Netherlands

November, 2015 Global Education Initiative, inaugural conference, Chicago, IL

TransNet – International Consortium for Transgender Health and Medicine Research

May, 2016 International meeting to set transgender medicine research priorities, Amsterdam, Netherlands

May, 2015 NIH conference to set transgender medicine research priorities, Bethesda, MD

June, 2014 Inaugural meeting, Chicago, IL

National Conferences

April, 2018 Live Surgery Course for Gender Affirmation Procedures, Mount Sinai Hospital and WPATH, New York City, NY (scheduled)

January, 2017 United States Professional Association for Transgender Health (USPATH) bi-annual meeting, Los Angeles, CA

November, 2015 NIH/Alliance for Academic Internal Medicine - Physician Researcher Workforce Taskforce Meeting, Washington, DC

October, 2015 National Internal Medicine Subspecialty Summit, Atlanta, GA

June, 2013 Special Symposium: “Transgender Medicine – What Every Physician Should Know” Annual Meeting of the Endocrine Society, San Francisco, CA

April, 2011 2011 ASP Accreditation Seminar "Meeting the ACGME and RRC-IM Standards for Successful Fellowship Programs" Arlington, VA

Alliance for Academic Internal Medicine

April, 2015 2015 ASP Accreditation Seminar “Moving Your Fellowship Program Forward” Spring Meeting, Houston, TX

April, 2014 2014 ASP Accreditation Seminar “NAS for Medical Subspecialties Is Almost Here” Spring Meeting, Nashville, TN

May, 2013 2013 ASP Accreditation Seminar “A Changing Landscape in Subspecialty Fellowship Education” Spring Meeting, Lake Buena Vista, FL

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April, 2012 2012 ASP Accreditation Seminar “Meeting ACGME and RRC-IM Standards for Successful Fellowship Programs” Spring Meeting, Atlanta, GA

Invited Lectures and Presentations

International

February, 2017 “A 21st-Century Framework to for Transgender Medical Care” Sheba Hospital, Tel Aviv, Israel

October, 2016 “A 21st-Century Approach to Hormone Treatment of Transgender Individuals” EndoBridge, Antalya, Turkey

May, 2016 “Transgender Women” International Olympic Committee Headquarters, Lausanne, Switzerland

October, 2015 “Workshop on Guidelines for Transgender Health Care” Canadian Professional Association for Transgender Health, Halifax, NS

March, 2015 “Endocrinology - Hormone Induced Changes” Transgender Health Care in Europe, European Professional Association for Transgender Health, Ghent, Belgium

June, 2014 “What to Know to Feel Safe Providing Hormone Therapy for Transgender Patients” International Congress of Endocrinology, Chicago, IL

September, 2011 “Transgender Therapy – The Endocrine Society Guidelines” World Professional Association for Transgender Health, Atlanta, GA

February, 2007 “Treating skin disease by manipulating thyroid hormone action” Grand Rounds, Meier Hospital, Kfar Saba, Israel

March, 2004 “New Directions in Thyroid Hormone Action: Skin and Hair” Grand Rounds, Meier Hospital, Kfar Saba, Israel

National

October, 2018 “Transgender Therapy – The Endocrine Society Guidelines” Endocrine Society: Clinical Endocrinology Update, Anaheim, CA

September, 2018 “Transgender Therapy – The Endocrine Society Guidelines” Endocrine Society: Clinical Endocrinology Update, Miami, FL

September, 2018 “Current Guidelines and Strategy for Hormone Treatment of Transgender Individuals” Minnesota-Midwest Chapter - American Association of Clinical Endocrinologists Annual Meeting, Minneapolis, MN (scheduled)

July, 2018 “Current Guidelines and Strategy for Hormone Treatment of Transgender Individuals” Upper Ohio Valley Chapter - American Association of Clinical Endocrinologists Annual Meeting, Indianapolis, IN (scheduled)

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- May, 2018 “A 21st-Century Strategy for Hormone Treatment of Transgender Individuals” American Association of Clinical Endocrinologists Annual Meeting, Boston, MA (scheduled)
- March, 2018 “21st-Century Strategies for Transgender Hormone Care” New Jersey Chapter - American Association of Clinical Endocrinologists Meeting, Morristown, NJ
- February, 2018 “A Strategy for the Medical Care of Transgender Individuals” Keynote Address for the International Society for Clinical Densitometry Annual Meeting, Boston, MA
- November, 2017 “A 21st-Century Strategy for Hormone Treatment of Transgender Individuals” National Transgender Health Summit, Oakland, CA
- September, 2017 “Transgender Therapy – The Endocrine Society Guidelines” Endocrine Society: Clinical Endocrinology Update, Chicago, IL
- May, 2017 “Transgender Medicine – a 21st Century Strategy for Patient Care” University of Arizona College of Medicine, Tucson, AR
- April, 2017 “Transgender Care Across the Age Continuum” Annual Meeting of the Endocrine Society, Orlando, FL
- March, 2017 “A 21st-Century Approach to Hormone Treatment of Transgender Individuals” Brown University School of Medicine, Providence, RI
- March, 2017 “What to Know: A 21st-Century Approach to Transgender Medical Care” United States Food and Drug Administration (FDA), Washington, DC
- February, 2017 “A 21st-Century Approach to Transgender Medical Care” United States Professional Association for Transgender Health, Los Angeles, CA
- February, 2017 “A 21st-Century Approach to Hormone Treatment of Transgender Individuals” Southern States American Association of Clinical Endocrinologists Annual Meeting, Memphis, TN
- December, 2016 “Transgender Medical Care in the United States Armed Forces” Global Education Initiative, World Professional Association for Transgender Health, Arlington, VA
- December, 2016 “Foundations in Hormone Treatment” Global Education Initiative, World Professional Association for Transgender Health, Arlington, VA
- November, 2016 “Developing a Transgender/Gender-Identity Curriculum for Medical Students” Association of American Medical Colleges National Meeting, Seattle, WA
- September, 2016 “A 21st-Century Approach to Hormone Treatment of Transgender Individuals” Endocrine Society: Clinical Endocrinology Update, Seattle, WA
- August, 2016 “A 21st-Century Approach to Hormone Treatment of Transgender Individuals” Oregon Health and Science University Ashland Endocrine Conference, Ashland, OR

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- March, 2016 “State-of-the-Art: Use of Hormones in Transgender Individuals” Annual Meeting of the Endocrine Society, Boston, MA
- October, 2015 “What Every Endocrinologist Should Know to Feel Safe Providing Hormone Therapy for Transgender Patients” University of Utah School of Medicine, Salt Lake City, UT
- April, 2015 “What to Know –to Feel Safe Providing Hormone Therapy for Transgender Patients” Pritzker School of Medicine, University of Chicago, Chicago, IL
- March, 2015 “What to Know –to Feel Safe with Hormone Therapy for Transgender Patients” Annual Transgender Health Symposium, Medical College of Wisconsin, Milwaukee, WI
- May, 2014 “Transgendorinology” Annual Meeting of the American Association of Clinical Endocrinologists, Las Vegas, NV
- May, 2013 “Transgender Therapy – Hormone Action and Nuance” National Transgender Health Summit, Oakland, CA
- April, 2013 “Transgender Therapy – What Every Provider Needs to Know” Empire Conference: Transgender Health and Wellness, Albany, NY
- April, 2013 “Transgender Therapy – What Every Endocrinologist Needs to Know” University of Maryland School of Medicine, Baltimore, MD
- November, 2012 “Transgender Therapy – What Every Endocrinologist Should Know” New York University School of Medicine, New York, NY
- May, 2010 “Transgender Treatment: What Every Endocrinologist Needs to Know” Brown University School of Medicine, Providence, RI
- November, 2009 “New Directions in Thyroid Hormone Action: Skin and Hair” Emory University School of Medicine, Atlanta, GA
- November, 2009 “Primary Care Update in the Treatment of Thyroid Disorders” Emory University School of Medicine, Atlanta, GA
- October, 2008 “Topical Iopanoic Acid Stimulates Epidermal Proliferation through Inhibition of the Type 3 Thyroid Hormone Deiodinase” Annual Meeting of the American Thyroid Association, Chicago, IL
- February, 2005 “New Directions in Thyroid Hormone Action: Skin and Hair” Endocrinology Grand Rounds, University of Minnesota, Minneapolis, MN
- February, 2005 “Thyroid Hormone Action on Skin and Hair: What We Thought We Knew” Dermatology Grand Rounds, University of Minnesota, Minneapolis, MN
- December, 2004 “Transgender Therapy: The Role of the Endocrinologist” Endocrinology Grand Rounds, Brown Medical Center, Providence, RI

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November, 2003 “New Directions in Thyroid Hormone Action: Skin and Hair” Endocrinology Grand Rounds, Dartmouth Medical Center, Hanover, NH

Regional

February, 2018 “Transgender Medicine – 21st Century Strategies for Patient Care” Medicine Rounds, Newton-Wellesley Hospital, Newton, MA (scheduled)

October, 2017 “Transgender Medicine – 21st Century Strategies for Patient Care” Medicine Rounds, Beth Israel-Milton Hospital, Milton, MA

September, 2017 “Transgender Medicine – 21st Century Strategies for Patient Care” Obstetrics-Gynecology Grand Rounds, Brigham and Women’s Hospital, Boston, MA

June, 2017 “State-of-the-Art: Hormone Therapy for Transgender Patients” Reproductive Endocrinology Rounds, Massachusetts General Hospital, Boston, MA

May, 2017 “A 21st-Century Strategy for Medical Treatment of Transgender Individuals” Boston Medical Center and Boston University School of Medicine, Boston, MA

March, 2017 “A 21st-Century Strategy for Medical Treatment of Transgender Individuals” Tufts Medicine Grand Rounds, Boston, MA

January, 2017 “What to Know: A 21st-Century Approach to Transgender Medical Care” Internal Medicine Rounds, Brigham and Women’s Hospital, Boston, MA

March, 2016 “State-of-the-Art: Hormone Therapy for Transgender Patients” Obstetrics-Gynecology Rounds, Brigham and Women’s Hospital, Boston, MA

November, 2015 “What Every Endocrinologist Should Know to Feel Safe Providing Hormone Therapy for Transgender Patients” Endocrinology Rounds, Tufts Medical Center, Boston, MA

May, 2015 “What Every Endocrinologist Should Know to Feel Safe Providing Hormone Therapy for Transgender Patients” Endocrinology Rounds, Massachusetts General Hospital, Boston, MA

December, 2014 “What to Know to Feel Safe Providing Hormone Therapy for Transgender Patients” Endocrinology Rounds, Beth Israel Deaconess Medical Center, Boston, MA

November, 2013 “Transgender Therapy – What Every Physician Should Know” Medicine Grand Rounds, Boston Veterans Administration Hospital, Boston, MA

May, 2005 “Transgender Therapy: The Role of the Endocrinologist”, Endocrinology Rounds, Tufts-New England Medical Center, Boston, MA

January, 2004 “New Directions in Thyroid Hormone Action: Skin and Hair”, Endocrinology Rounds, Brigham and Women’s Hospital, Boston, MA

October, 1999 “The Many Faces of Hypothyroidism”, Medicine Grand Rounds, Bedford Veterans Administration Hospital, Bedford, MA

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Institutional, Icahn School of Medicine at Mount Sinai, New York, NY

April, 2018 “State of the Art Hormone Therapy for Transgender Patients”, Section of Infectious Disease

Institutional, Boston University School of Medicine, Boston, MA

March, 2017 “State of the Art Hormone Therapy for Transgender Patients”, Section of Infectious Disease

January, 2017 “What you need to know – to supervise care for our transgender patients at BMC”,
Section of Endocrinology

February, 2016 “State of the Art Hormone Therapy for Transgender Patients”, Department of Medicine

November, 2015 “What the Family Medicine Physician Should Know to Feel Safe Providing Hormone Therapy
for Transgender Patients”, Department of Family Medicine

November, 2014 “What the Anesthesiologist Should Know to Feel Safe Providing Hormone Therapy for
Transgender Patients”, Department of Anesthesia

January, 2014 “Update on the Current Guidelines for Transgender Hormone Therapy”, Section of
Endocrinology

October, 2011 “Transgender Therapy – What Every Physician Should Know”, Department of Medicine

February, 2011 “Current Guidelines for Transgender Hormone Therapy: What Every Endocrinologist Should
Know”, Section of Endocrinology

November, 2005 “Thyroiditis and Other Insults to Thyroid Function” Core Curriculum in Adult Primary Care
Medicine

November, 2005 “Interpretation of Thyroid Function Tests Made Easy” Core Curriculum in Adult Primary Care
Medicine

January, 2005 “Transgender Therapy: The Role of the Endocrinologist” Endocrinology Grand Rounds

December, 2004 "Update in Endocrinology: Thyroid" Medicine Grand Rounds

January, 2004 “New Directions in Thyroid Hormone Action: Skin and Hair” Medicine Grand Rounds

March, 2003 “Thyroid Hormone Action on Hair and Skin” Endocrinology Grand Rounds

November, 1999 “Central Resistance to Thyroid Hormone – From Bedside to Bench” Endocrinology Grand
Rounds

Curriculum development with external dissemination

2014-present Web site for Association of Program Directors of Endocrinology and Metabolism (APDEM), which serves as *the primary resource for endocrinology fellowship program directors throughout the United States and Canada.*

- Sample curricula
- Streaming lectures to support specific curricular needs to fill programmatic gaps at certain programs
- New assessment forms that map skills to milestones that conform to Next Accreditation System (NAS) standards of the Accreditation Council for Graduate Medical Education (ACGME)

2013-present Dissemination of Transgender Medicine Curriculum with local modification to institutions in the United States and Canada

Curriculum adopted

Johns Hopkins School of Nursing (sample video:
<http://vimeo.com/jhunursing/review/97477269/abbcf6d33a>)

Ohio State University College of Medicine

University of British Columbia, Faculty of Medicine

University of Central Florida College of Medicine

Tufts University School of Medicine

Curriculum in development

Dartmouth School of Medicine

University of Vermont College of Medicine

Work in progress in preparation for sharing transgender curriculum

Albany Medical College

Emory School of Medicine

George Washington University Medical School

Hofstra School of Medicine

University of California – San Diego School of Medicine

University of Kentucky College of Medicine

University of Louisville School of Medicine

University of Michigan Medical School

University of Minnesota Medical School

University of Nebraska School of Medicine

University of Pennsylvania School of Medicine

Washington University School of Medicine

2013-2015 Co-author of the *Medical Subspecialty Reporting Milestones used for evaluation of Internal Medicine subspecialty medicine fellowship programs throughout the United States* by the Accreditation Council for Graduate Medical Education (ACGME).

<https://www.acgme.org/acgmeweb/Portals/0/PDFs/Milestones/InternalMedicineSubspecialtyMilestones.pdf>

2011-2014 Web site content expert for APDEM, which served as *the primary resource for endocrinology fellowship Program directors throughout the United States and Canada*. Materials included sample curricula, streaming lectures to support specific curricular needs to fill programmatic gaps at certain programs, and guidance dealing with ACGME site-visits

Other curriculum development

2016-present Curricular Content to teach transgender hormone therapy in the LGBT elective at Harvard Medical School

2016-present Curricular Content to teach transgender hormone therapy at Tufts University School of Medicine.

2011-present Fully revised curriculum for the Boston University Medical Center Fellowship Training Program in Endocrinology, Diabetes and Nutrition.

2010-present Curricula to teach transgender hormone therapy at Boston University School of Medicine.

2006-2014 Written examination in endocrinology to complement the multiple choice examination for medical students — validation relative to success later in medical school is in progress.

Bibliography: (ORCID  # 0000 0003 2497 8401)

Names of mentees are underlined throughout the bibliography section

**5 currently most influential papers are noted with double asterisks

Original, Peer-Reviewed Articles

1. **Safer JD**, Langlois MF, Cohen R, Monden T, John-Hope D, Madura J, Hollenberg AN, Wondisford FE. Isoform variable action among thyroid hormone receptor mutants provides insight into pituitary resistance to thyroid hormone. *Mol Endocrinol* 1997;11(1):16-26. PMID 8994184
2. Langlois MF, Zanger K, Monden T, **Safer JD**, Hollenberg AN, Wondisford FE. A unique role of the beta-2 thyroid hormone receptor isoform in negative regulation by thyroid hormone - mapping of a novel amino-terminal domain important for ligand-independent activation. *J Biol Chem* 1997;272(40):24927-24933. PMID 9312095
3. **Safer JD**, Cohen RN, Hollenberg AN, Wondisford, FE. Defective release of corepressor by hinge mutants of the thyroid hormone receptor found in patients with resistance to thyroid hormone. *J Biol Chem* 1998;273(46):30175-30182. PMID 9804773
4. **Safer JD**, O'Connor MG, Colan SD, Srinivasan S, Tollin SR, Wondisford FE. The TR-beta gene mutation R383H is associated with isolated central resistance to thyroid hormone. *J Clin Endocrinol Metab* 1999;84(9):3099-3109. PMID 10487671
5. **Safer JD**, Fraser LM, Ray S, Holick MF. Topically applied triiodothyronine stimulates epidermal proliferation, dermal thickening, and hair growth in mice and rats. *Thyroid* 2001;1(8):717-724. PMID 11525263
6. Tangpricha V, Chen BJ, Swan NC, Sweeney AT, de las Morenas A, **Safer JD**. Twenty-one gauge needles provide more cellular samples than twenty-five gauge needles in fine needle aspiration biopsy of the thyroid. *Thyroid* 2001;11(10):973-976. PMID 11716046
7. **Safer JD**, Crawford TM, Fraser LM, Hoang M, Ray S, Chen TC, Persons K, Holick MF. Thyroid hormone action on skin: diverging effects of topical versus intraperitoneal administration. *Thyroid* 2003;13(2):159-165. PMID 12699590
8. Santini F, Ceccarini G, Montanelli L, Rosellini V, Mammoli C, Macchia P, Gatti G, Pucci E, Marsili A, Chopra IJ, Chiovato L, Vitto P, **Safer JD**, Braverman LE, Martino E, Pinchera A. Role for inner ring deiodination preventing transcutaneous passage of thyroxine. *J Clin Endocrinol Metab* 2003;88(6):2825-2830. PMID 12788895
9. **Safer JD**, Crawford TM, Holick MF. A role for thyroid hormone in wound healing through keratin gene expression. *Endocrinology* 2004;145(5):2357-2361. PMID 14736740
10. **Safer JD**, Crawford TM, Holick MF. Topical thyroid hormone accelerates wound healing in mice. *Endocrinology* 2005;146(10):4425-4430. PMID 15976059

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11. Saha AK, Persons K, **Safer JD**, Luo Z, Holick MF, Ruderman NB. AMPK regulation of the growth of cultured human keratinocytes. *Biochem Biophys Res Co* 2006;349(2):519-24. PMID 16949049
12. **Safer JD**, Ray S, Holick MF. A topical PTH/PTHrP receptor antagonist stimulates hair growth in mice. *Endocrinology* 2007;148(3):1167-1170. PMID 17170098
13. **Safer JD**, Persons K, Holick MF. A thyroid hormone deiodinase inhibitor can decrease cutaneous cell proliferation in vitro. *Thyroid* 2009;19(2):181-185. PMID 19191748
14. Ariza MA, Loken WM, Pearce EN, **Safer JD**. Male sex, African-American race/ethnicity, and T3 levels at diagnosis are predictors of weight gain following medication and radioactive iodine treatment for hyperthyroidism. *Endocr Pract* 2010;16(4):609-616. PMID 20350916
15. Abraham TM, de las Morenas A, Lee SL, **Safer JD**. In thyroid fine needle aspiration, use of bedside-prepared slides significantly increased diagnostic adequacy and specimen cellularity relative to solution-based samples. *Thyroid* 2011;21(3):237-242. PMID 21323589
16. Huang MP, Rodgers KA, O'Mara R, Mehta M, Abuzahra HS, Tannenbaum AD, Persons K, Holick MF, **Safer JD**. The thyroid hormone degrading Dio3 is the primary deiodinase active in murine epidermis. *Thyroid* 2011;21(11):1263-1268. PMID 21936673
17. Toraldo G, Bhasin S, Bakhit M, Guo W, Serra C, S, **Safer JD**, Bhawan J, Jasuja R. Topical androgen antagonism promotes cutaneous wound healing without systemic androgen deprivation by blocking beta-catenin nuclear translocation and cross-talk with TGF-beta signaling in keratinocytes. *Wound Repair Regen* 2012;20:61-73. PMID 22276587
- 18**. **Safer JD**, Pearce EN. A simple curriculum content change increased medical student comfort with transgender medicine. *Endocr Pract* 2013;19(4):633-637. PMID 23425656
 - First ever demonstration of the effectiveness of an evidence-based approach to teaching transgender medicine to medical students
- 19**. Thomas DD, **Safer JD**. A simple intervention raised resident-physician willingness to assist transgender patients seeking hormone therapy. *Endocr Pract* 2015;21(10):1134-42. PMID 26151424
 - First ever demonstration of the effectiveness of an evidence-based approach to teaching transgender medicine to physician trainees
20. Mundluru SN, **Safer JD**, Larson, AR. Unforeseen ethical challenges for isotretinoin treatment in transgender patients. *Int J of Womens Dermatol* 2016;2(2):46-48. PMID 28492004
21. Eriksson SES, **Safer JD**. Evidence-based curricular content improves student knowledge and changes attitudes towards transgender medicine. *Endocr Pract* 2016;22(7):837-841. PMID 27042742
22. Chan B, Skocylas R, **Safer JD**. Gaps in transgender medicine content identified among Canadian medical school curricula. *Transgender Health* 2016;1(1):142-150. PMID 29159305
23. Myers SC, **Safer JD**. Increased rates of smoking cessation observed among transgender women receiving hormone treatment. *Endocr Pract* 2017;23(1):32-36. PMID 27682351

24. Berli J, Knudson G, Fraser L, Tangpricha V, Ettner R, Ettner F, **Safer JD**, Graham j, Monstrey S, Schechter L. Gender confirmation surgery: What surgeons need to know when providing care for transgender individuals. *JAMA Surgery* 2017;152(4):394-400. PMID 28196182
25. Kailas M, Lu HMS, Rothman EF, **Safer JD**. Prevalence and types of gender-affirming surgery among a sample of transgender endocrinology patients prior to state expansion of insurance coverage. *Endocr Pract* 2017;23(7):780-786. PMID 28448757
26. Liang JJ, Gardner IH, Walker JA, **Safer JD**. Observed deficiencies in medical student knowledge of transgender and intersex health. *Endocr Pract* 2017;23(8):897-906. PMID 28534684
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Dissemination Through Lay Press and Social Media

Mass Audience Programming:

“Transgender Health AMA” Reddit. July 24, 2017. Expert responses to questions about transgender medicine. https://www.reddit.com/r/science/comments/6p7uhb/transgender_health_ama_series_im_joshua_safer/ over 150,000 views, over 4200 comments

“Gender Revolution with Katie Couric” National Geographic Channel. Kouric, Katie. February 6, 2017. Extended interview with Katie Couric threaded into a 2-hour television special. Trailer: <https://www.youtube.com/watch?v=y93MsRaC6Zw> broadcast in 143 countries

“Is gender identity biologically hard-wired?” Judd, Jackie. PBS NewsHour. May 13, 2015. Extended interview for Jackie Judd <http://www.pbs.org/newshour/bb/biology-gender-identity-children/> estimated just over 1,000,000 viewers per Nielsen

Innovation	Significance/impact
<i>Development and leadership of the Transgender Medicine Clinical Center at Boston Medical Center</i>	<ul style="list-style-type: none"> • The Center for Transgender Medicine and Surgery at BMC is the first comprehensive center for transgender medical care in New England • The Center is one of only several such centers in North America that are housed in academic teaching hospitals where care can be integrated • The Center is a model for such care delivery in North America.
<i>Development and dissemination of the seminal reviews that are most widely cited in the lay press that explain the concept that gender identity is a biological phenomenon (see bibliography section above, e.g. PMID: 25667367).</i>	<ul style="list-style-type: none"> • The concept that gender identity is a biological phenomenon has been a key component of the recent culture change in favor of mainstream medical care for transgender individuals (see media section above)
<i>Development and dissemination of new and influential curricular content to teach the biology of gender identity in conventional medical education (see curriculum section above)</i>	<p>The teaching of evidence-based approaches to transgender medical care to:</p> <ul style="list-style-type: none"> • Medical students (see bibliography section above, e.g. PMID 23425656 and PMID 27042742) • Physician trainees (see bibliography section above, e.g. PMID 26151424) • Practicing physicians (see invited lectures section above) serves as a crucial component to the gained credence given to care for transgender individuals in conventional medical settings.
<i>Development and dissemination of seminal reviews supporting the safety of transgender hormone treatment regimens (see invited lectures section above)</i>	<ul style="list-style-type: none"> • Once mainstream medical providers learn of the biology underlying gender identity, their biggest concern is the relative safety of the medical interventions relative to the benefit. • The development and dissemination of the seminal reviews and lectures supporting the safety of current treatment regimens serves as a further crucial component to the culture change among conventional medical providers in favor of routine medical care for transgender individuals