# The Faculty of Medicine of Harvard University Curriculum Vitae

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Place of Birth: Altoona, Pennsylvania, USA

## **Education:**

2005 – 2009	B.S. with Honors Summa cum laude Student Marshal	Biomedical Engineering Thesis Advisors: Peter J. Butler and Henry J. Donahue	The Pennsylvania State University
2009 – 2018	M.D. with Honors in Service	Medicine	Weill Cornell Medical College
2011 – 2015	Ph.D.	Biophysics and Neuroscience Thesis Advisor: James Hudspeth	The Rockefeller University

## **Postdoctoral Training:**

2015 – 2016	Postdoctoral Fellow	Howard Hughes Medical Institute and Laboratory of Sensory Neuroscience, James Hudspeth	The Rockefeller University
2018 - 2019	Intern	Department of Medicine	Massachusetts General Hospital
2018 – 2022	Resident	Department of Psychiatry	Massachusetts General Hospital and McLean Hospital

## **Faculty Appointments:**

2022 – Member of the Psychiatry Harvard Medical School Faculty

## **Appointments at Hospitals/Affiliated Institutions:**

1

2022 -	Psychiatrist I	Department of Psyc	hiatry	Massachusetts General Hospital
Other Professi	onal Positions:			
2014 –	Co-Founder, Partner, and Curator of Clinical Imaging	o-Founder, Partner, and Neurodome		
2016	Grass Fellow	Grass Founda	ntion	The Marine Biological Laboratory
Major Admini	strative Leadership Position	18:		
Local	•			
2009 – 2011	Board Member and Insurance Chair Weill Cornell Community Clinic		Weill Cornell Medical College	
2011 – 2013	Executive Director Weill Cornell Community Clinic		Weill Cornell Medical College	
2021 – 2022	Chief Resident Outpatient Psychiatry Division		Massachusetts General Hospital	
	Associate Director, Psychiatric Studies Translational Research Center		Massaahusatta G	onaral Uagnital
2022 –			Massachusetts General Hospital 8 hours/week	
2022 –	Associate Program Director, MGH/McLean Adult Psychiatry Residency Program		Massachusetts General Hospital	
			12 hours/week	
Committee Ser	vice:			
<b>Local</b> 2018 – 2020	Curriculum Committee, De	partment of	Massachusetts	s General Hospital and McLean
2010 2020	Psychiatry	P ********* 0.7	Hospital	. Солоти тограми или тагодом
<b>Professional So</b>	ocieties:			
2010 –	American Medical Associa	tion		
2011 –	Society for Neuroscience			
2012 –	Biophysical Society			
2016 –	American Psychiatric Asso	ciation	Member	
	2020-2022		Leadership Fe	ellow

2018 -

Alpha Omega Alpha Honor Society

## **Honors and Prizes:**

2007, 2008	Evan Pugh Scholar	The Pennsylvania State University	Placement in the upper 0.5% of the Junior and Senior classes
2009	John W. White Graduate Fellowship	The Pennsylvania State University	Academic excellence
2013	Marcus M. Reidenberg Award in Community Service	Weill Cornell Medical College	Achievement by leading an organization for community service
2018	The Richard N. Kohl Prize for Excellence in Psychiatry	Weill Cornell Medical College	Highest achievement in Psychiatry during medical school
2018	The Leonard P. Tow Humanism in Medicine Award	Weill Cornell Medical College	Awarded to one medical student for humanism in medicine. Co-awarded by the Arnold P. Gold Foundation.
2018	The John Metcalf Polk Prize	Weill Cornell Medical College	Highest academic achievement in medical school
2020	APA Leadership Fellowship	American Psychiatric Association	Awarded to psychiatry residents to develop national leaders in psychiatry
2020	Outstanding Resident Award (ORAP)	National Institute of Mental Health (NIMH)	Recognizes psychiatry residents with outstanding academic and research potential

# **Report of Funded and Unfunded Projects**

## **Past**

2013 – 2017 Investigating the hair-bundle state space in an exploration of inner-ear tuning

National Institute on Deafness and Other Communication Disorders (NIDCD)

F30 NRSA Fellowship

Grant Number: F30DC013468 Role: Principal Investigator

Description: Examination of the dynamical properties of hair bundle mechanics using

micromechanics and dynamical-systems modeling.

#### Current

2021 – 2022 Genomics of Computationally Defined Phenotypes for Repetitive and Ritualistic Behaviors

Stanley Center for Psychiatric Research, Broad Institute

Pamela Sklar Psychiatric Genetics and Neuroscience Fellowship

Role: Principal Investigator, Direct Costs: \$150,000

Description: Computational, genomic, neuroimaging, and behavioral study of ritualized behaviors

and response to both psychopharmacology and psychotherapy in subjects with obsessive-

compulsive disorder

#### **Unfunded Current Projects**

2018 – Behavioral classification of mouse and human behavior

Role: Co-Investigator

Description: Computational modeling with autoregressive hidden Markov models to capture behavioral phenotypes across mammalian species, with a focus on bipolar disorder and

schizophrenia.

2020 – Deep phenotyping in obsessive-compulsive disorder

Role: Co-Investigator

Description: Dynamical-systems modeling of behavioral phenotypes in obsessive-compulsive

disorder.

## **Report of Local Teaching and Training**

#### **Teaching of Students in Courses:**

2014 – 2016 Biological Statistics The Rockefeller University

Graduate course 10 hours/week

(Anticipated) Instructor Harvard Medical School

2022 – Mind, Brain, and Behavior Course 80 hours/year

# Research Supervisory and Training Responsibilities:

2011 – 2016 Rotation Mentor The Rockefeller University

Graduate students 5 hours/week

2015 Summer Science Research Program The Rockefeller University

High school students 2 hours/week

2015 – 2016 Summer Undergraduate Research Fellowship The Rockefeller University

(SURF) Program

#### **Local Invited Presentations:**

No presentations below were sponsored by 3<sup>rd</sup> parties/outside entities

These presentations below are used by outside entities are so noted and the appearance idea (and idea) idea.

Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are) identified.

Health and Medical Data Science, Workshop Leader

Future of Care Annual Conference

Weill Cornell Medical College and The Rockefeller University, New York, NY

"A 66-Year-Old Man with Pancytopenia and Rash"

NEJM Clinicopathological Conference

Department of Medicine, Massachusetts General Hospital

2021 "Empathy and Psychiatry"

Psychosomatic Conference

Department of Psychiatry, Massachusetts General Hospital

2021 "Phenethylamines We Know and Love"

Psychosomatic Conference

Department of Psychiatry, Massachusetts General Hospital

## Report of Regional, National and International Invited Teaching and Presentations

 $\boxtimes$  No presentations below were sponsored by  $3^{rd}$  parties/outside entities

Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are) identified.

#### **International**

2016 Kinocilia actively augment mechanosensation by the lateral-line system

Brain and Spine Institute (Institut du Cerveau et de la Moelle epinere, ICM)

**Invited Presentation** 

Paris, France

#### **Report of Clinical Activities and Innovations**

#### **Current Licensure and Certification:**

2018 – 2020 Massachusetts Limited License

2020 – Massachusetts Full License

#### **Practice Activities:**

2018 –	Residency	Massachusetts General Hospital and McLean Hospital	Inpatient and Outpatient Psychiatry
(Anticipated) 2022 –	Psychiatrist	Center for OCD and Related Disorders (CORD) Massachusetts General Hospital	Outpatient Psychiatry 12 hours/week
(Anticipated) 2022 –	Psychiatrist	Inpatient Psychiatric Service Massachusetts General Hospital	Inpatient Psychiatry 8 hours/week
(Anticipated) 2022 –	Attending Psychiatrist	Resident Clinic Outpatient Psychiatry Division Massachusetts General Hospital	Outpatient Psychiatry 4 hours/week
(Anticipated) 2022 –	Clinical Investigator	Clinical Trials Network and Institute (CTNI) Massachusetts General Hospital	Clinical Evaluation 8 hours/week

## Report of Scholarship

Peer-Reviewed Scholarship in print or other media:

## **Research Investigations**

- \* Senior author
  - 1. Salvi JD, Lim JY, Donahue HJ. Finite element analysis of fluid flow conditions in cell culture. *Tissue Engineering Part C: Methods.* 2010 Aug; 16(4): 661-670. PMID 19778171. PMCID 2945919.
  - 2. Lim JY, Loiselle AE, Lee JS, Zhang JY, Salvi JD, Donahue HJ. Optimizing osteogenic potential of adult stem cells for skeletal regeneration. *Journal of Orthopaedic Research*. Nov; 29(11):1627-1633. Epub 2011 Apr 20. PMID 21509820. PMCID 3263698.
  - **3.** Patel SH, **Salvi JD**, O'Maoileidigh D, Hudspeth AJ. Frequency-selective exocytosis by ribbon synapses of hair cells in the bullfrog's amphibian papilla. *The Journal of Neuroscience*. 2012 Sep 26; 32(39): 13433-13438. PMID 23015434. PMCID 3468150.
  - **4. Salvi JD**. Graphic tobacco warning labels: an improper solution? *Lung Cancer: Targets and Therapy.* 2014 Jul 12;5: 33-34. PMID 25558178. PMCID 4280669.
  - **5.** Riddle MC, Lin J, Steinman JB, **Salvi JD**, Reynolds MM, Kastor AS, Harris C, Boutin-Foster C. Incorporating the principles of the patient-centered medical home into a student-run free clinic. *Advances in Medical Education and Practice*. 2014 Sept 11 5: 289-297. PMID 25246814. PMCID 4166215.
  - **6. Salvi JD**, O'Maoileidigh D, Fabella B, Tobin M, Hudspeth AJ. Control of a hair bundle's function by its mechanical load. *Proceedings of the National Academy of Sciences of the United States of America*. *2015* Feb 17 112(9): E1000-E1009. PMID 25691749. PMCID 4352782.
  - 7. Salvi JD, O'Maoileidigh D, Hudspeth AJ. Identification of bifurcations from direct observations of noisy biological oscillators. *Biophysical Journal*. 2016 Aug 23 111(4): 798-812. PMID

27558723.

- **8.** Azimzadeh JB, **Salvi JD\***. Physiological preparation of hair cells from the sacculus of the American bullfrog (*Rana catesbeiana*). *Journal of Visualized Experiments*. 2017 Mar (121), e55380, doi:10.3791/55380. PMID 28362415. \***Senior author.**
- **9.** Gneveda KS, Jacobo AJ, **Salvi JD**, Petelski A, Hudspeth AJ. Mechanical force restricts the growth of the murine utricle. *eLife*. 2017 Jul 25 6: e25681. doi: 10.7554/eLife.25681. PMID 28742024.
- **10.** Milewski AR, O'Maoileidigh D, **Salvi JD**, Hudspeth AJ. Homeostatic enhancement of sensory transduction. *Proceedings of the National Academy of Sciences of the United States of America*. 2017 Aug 15 114(33): E6794-E6803. doi: 10.1073/pnas.1706242114. PMID 28760949. PMCID 5565450.

### Other peer-reviewed scholarship

- \* Senior/Corresponding author
  - 1. Salvi JD, Iqbal M, Kotbi N, FrancoisD. Successful use of electroconvulsive therapy in the setting of lattice degeneration of the retina. *Primary Care Companion for CNS Disorders*. 2018 Apr 5 20(2):17l02190. PMID 29659212.
  - **2.** McDowell MJ, **Salvi JD\*.** Casting light from the shadows: Coping and defenses amidst a pandemic. *Journal of Clinical Psychiatry*. 2020 Jun; 81(4):20com13468. PMID 32558400. \**Corresponding author*.
  - **3.** Olsen ST, Basu I, Bilge MT, Kanabar A, Boggess M, Rockhill AP, Gosai AK, Hahn E, Peled N, Ennis M, Shiff I, Fairbank-Haynes K, **Salvi JD**, Cusin C, Deckersbach T, Williams Z, Baker J, Dougherty DD, Widge AS. Case report of dual-site neurostimulation and chronic recording of cortico-striatal circuitry in a patient with treatment refractory obsessive compulsive disorder. *Frontiers in Human Neuroscience*. 2020 Sep. doi: 10.3389/fnhum.2020.569973
  - **4. Salvi J**. Calculated decisions: Columbia-Suicide Severity Rating Scale (C-SSRS). *Emergency Medicine Practice*. 2019 May 1 21(5): CD3-4. PMID 31039299.
  - **5. Salvi JD**, Rauch SR, Baker JT. Behavior as physiology: How dynamical-systems theory could help psychiatry. *American Journal of Psychiatry*. 178(9): 791-792. 2021 Sep. doi: 10.1176/appi.ajp.2020.20081151. PMID 34516231. \**Corresponding author*.

## Proceedings of meetings or other non-peer reviewed scholarship

**1. Salvi JD**, O Maoilideigh D, Fabella B, Tobin M, Hudspeth AJ. (2015) Characterization of active hair-bundle motility by a mechanical-load clamp. In: *Mechanics of Hearing: Protein to Perception*. Karavitaki KD, Corey DP (eds.) American Institute of Physics, Melville, NY pp. 030005:1-5.

- 2. Milewski AR, O'Maoileidigh D, **Salvi JD**, Hudspeth AJ. Homeostatic enhancement of active mechanotransduction. In: Mechanics of Hearing. In: To the Ear and Back Again Advances in Auditory Biophysics, Bergevin C, Puria S (eds.) American Institute of Physics, Melville, NY. pp. 120007:1-6.
- 3. O'Maoileidigh D, **Salvi JD**, Hudspeth AJ. Signal detection by active, noisy hair bundles. In: *To the Ear and Back Again Advances in Auditory Biophysics*, Bergevin C, Puria S (eds.) American Institute of Physics, Melville, NY p. 060002.

## Reviews, chapters, monographs and editorials

- 1. Salvi J. Psychiatric Assessment: Commonly Used Rating Scales. In: Taylor JB, Beach SR, and Puckett J (Eds.), *Pocket Psychiatry, 1st Edition*. Philadelphia, PA: Lippincott Williams & Wilkins Company. 2019. pp 1-9.
- **2. Salvi J**. Somatic Therapies: Electroconvulsive Therapy. In: Taylor JB, Beach SR, and Puckett J (Eds.), *Pocket Psychiatry, 1st Edition*. Philadelphia, PA: Lippincott Williams & Wilkins Company. 2019. pp 4-2.
- **3. Salvi JD,** Shea T, Schnitzer K. Schizophrenia. In: *Ferri's Clinical Advisor 2023*. Elsevier Health. 2022. pp 1340-e1-e9.

## **Doctoral Thesis:**

**Salvi JD.** Mechanical Control of Sensory Hair-Bundle Function. 2015. Student Theses and Dissertations. 286. <a href="https://digitalcommons.rockefeller.edu/student theses">https://digitalcommons.rockefeller.edu/student theses and dissertations/286</a>

## Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings:

- 1. Beauchamp P, Eichi, HR, **Salvi JD**, Leibenthal E, Layfield SD, Bray C, Patterson R, Baker JT. Can meaningful clinical information be derived from triaxial accelerometers in adult hospital psychiatry? Harvard Health Data Science Symposium. November 5, 2021. Cambridge, MA.
- 2. Eichi, HR, Liebenthal E, Layfield SD, Bray C, Patterson R, Duffy LA, Wong S, **Salvi JD**, Yip AG, Ressler KJ, Baket JT. Quantifying activity and sleep using triaxial accelerometers in short-term inpatient psychiatric settings. McLean Research Day. January 26, 2022. Belmont, MA.

#### **Narrative Report**

#### Introduction

I am a physician-scientist who specializes in the care of patients with obsessive-compulsive and related disorders. After completing my training in Psychiatry at Massachusetts General Hospital (MGH) and McLean Hospital, I joined the faculty at MGH and Harvard Medical School (HMS), where I provide clinical care, supervise trainees, administer a clinic, and conduct research on obsessive-compulsive disorder (OCD) to enhance our knowledge and

the quality of patient care. My roles at MGH and HMS comprise a combination of clinical care, teaching, and research.

#### **Area of Excellence: Clinical Expertise and Innovation**

My clinical interests and expertise revolve around the practice of adult outpatient and inpatient psychiatry. When I join the faculty of MGH in 2022, I will be actively involved in clinical work, providing treatment for patients afflicted with obsessive-compulsive and related disorders. I will work closely with colleagues in the Center for OCD and Related Disorders (CORD) at MGH, along with close collaboration with members of the OCD Institute at McLean Hospital.

## **Teaching**

I will be actively involved in teaching and supervision of medical students and residents at the MGH/HMS. I will work closely with residents in the Outpatient Psychiatry Division at MGH, where I will serve as a clinical supervisor. Additionally, I will serve as an instructor in the Mind, Brain, and Behavior course for first-year medical students at HMS. Having previously designed graduate-level courses in biological statistics at The Rockefeller University, I plan to adapt this knowledge to develop a similar course for residents and medical students at MGH and HMS.

## **Significant Supporting Activity: Investigation**

My research interests lie in the nosology of psychiatric illness. To achieve this, I was awarded a Sklar Fellowship from the Stanley Center for Psychiatric Genetics at The Broad Institute. I employ computational approaches for behavioral classification, genomic studies, neuroimaging, and cognitive tasks in patients with OCD, with a goal to both improve our understanding of this disorder and enhance clinical care in both psychopharmacology and psychotherapy. I will continue this work in collaboration with both the CORD at MGH and the OCD Institute at McLean Hospital, with a goal of applying for a K award in 2-3 years.

#### Significant Supporting Activity: Administration and Institutional Service

I will serve as an associate director of psychiatric studies in the Translation Research Center at MGH. Here I will recruit, design, and run inpatient Phase I and II clinical trials in collaboration with industry leaders. Furthermore, I have begun collaboration with other research groups at MGH who wish to pursue inpatient psychopharmacological studies.

## **Summary**

As a Member of the Faculty at HMS I will provide excellent clinical care, administrative oversight, and teaching, while also conducting clinical trials in my area of clinical expertise.

Through my lecturing (at a local, regional, and national level), my written works (e.g., peer-reviewed original research, topical reviews of the literature, and book chapters in well-regard texts), my clinical research, and my involvement with professional societies I have sought to improve the care for patients with all psychiatric illnesses, focusing primarily on obsessive-compulsive and related disorders.