

NEIR ESHEL, MD, PHD

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EDUCATION AND CLINICAL TRAINING

Psychiatry residency, research track, Stanford University	6/2020
MD, Harvard Medical School	5/2016
PhD in Neurobiology, Harvard University	11/2014
MSc with Distinction in Clinical Neuroscience, University College London	11/2008
AB <i>summa cum laude</i> in Molecular Biology and Neuroscience, Princeton University	6/2007

RESEARCH POSITIONS

Assistant Professor (University Tenure Line), Stanford University, 5/2021-Present
Dept. of Psychiatry & Behavioral Sciences

Instructor, Stanford University, Dept. of Psychiatry & Behavioral Sciences 7/2020-4/2021

- Attending psychiatrist, LGBTQ+ Clinic
- Research affiliation: Malenka Lab

Resident and Postdoctoral Scholar, Stanford University 7/2016-6/2020
Mentors, Rob Malenka, MD, PhD and Amit Etkin, MD, PhD

- Developed mouse models to probe the neurobiology of frustration and aggression.
- Used fMRI and EEG to predict rTMS treatment response in patients with depression and identify neural markers of frustration and anger in patients with PTSD.

MD-PhD Student, Harvard University 7/2009-6/2016
PhD advisor, Naoshige Uchida, PhD

- Employed extracellular recording and optogenetics in mice to dissect the dopamine circuit regulating reinforcement learning.

Master's Student, University College London 9/2007-7/2009
Advisors, Jon Driver, DPhil; Jon Roiser, PhD; Peter Dayan, PhD

- Used TMS to study interhemispheric interactions underlying somatosensory detection.
- Created computational models of decision-making in depression.

Intern, American Association for the Advancement of Science 6/2007-9/2007
Mentor, Shirley Malcom, PhD

- Authored plain-language book on how people learn, integrating research from neuroscience, psychology, and cognitive science.

Undergraduate Researcher, Princeton University 9/2003-6/2007
Advisor, Jonathan Cohen, MD, PhD

- Combined fMRI and TMS to examine dopamine-mediated signals for flexible cognition.

Intern, World Health Organization 5/2005-7/2005
Mentor, Jose Martines, MD, PhD

- Published a systematic review on the efficacy of low-cost parenting interventions to enhance child health in developing countries.

Intramural research associate, National Institute of Mental Health 6/2001-8/2005
Mentors, Daniel Pine, MD; Monique Ernst, MD, PhD

- Over five summers, used fMRI and behavioral economics to study the development of reward processing and risk-taking in adolescence.

HONORS AND AWARDS

Career Development Institute for Psychiatry, selected participant	2019
Outstanding Resident Award, National Institute of Mental Health	2018
Grand Prize, <i>Science</i> and SciLifeLab Prize for Young Scientists	2016
<ul style="list-style-type: none"> • Awarded cash prize, an invitation to publish an essay in <i>Science</i>, and a trip to Stockholm to participate in Nobel Week. Chosen by the editors of <i>Science</i> from the global pool of recent PhD graduates. 	
Larry Katz Memorial Lectureship, Cold Spring Harbor	2016
<ul style="list-style-type: none"> • Awarded to the graduate student worldwide who has done “the most original and significant work in the past two years on neuronal circuits.” 	
Harvard University Certificate of Distinction in Teaching	2013
National LGBT Health Achievement Award	2011
<ul style="list-style-type: none"> • Awarded by the American Medical Student Association and Gay & Lesbian Medical Association 	
Haymon Gorlov Prize, Institute of Neurology, University College London	2008
<ul style="list-style-type: none"> • Awarded to the top-ranked student in the MSc in Clinical Neuroscience 	
Lindau Meeting of Nobel Laureates, selected participant	2007
Sigma Xi Book Award, Department of Molecular Biology, Princeton University	2007
<ul style="list-style-type: none"> • Awarded for the best undergraduate research thesis 	
Phi Beta Kappa	2007
Shapiro Prize for Academic Excellence, Princeton University	2004-05

FELLOWSHIPS AND TRAVEL GRANTS

Biological Psychiatry Travel Fellowship	2017
ACNP Travel Fellowship	2015
COSYNE Travel Grant	2014
Marshall Scholarship	2007-09
Organization for Human Brain Mapping Abstract Award	2009
<i>Brain</i> Travel Grant	2009
Barry Goldwater Scholarship	2005-06

LEADERSHIP AND SERVICE

LGBTQ Advocacy

Member, Search Committee, Executive Director of LGBTQ+ Programs for Stanford Medicine	2020-Present
Instructor, LGBTQ+ Health, Stanford Medical Student Core Rotations	2020-Present
LGBTQ Chair, Stanford GME Diversity Committee	2019-2020
Member, Stanford Medicine Diversity Cabinet	2018-Present
Co-chair and Co-founder, Stanford LGBT Housestaff and Allies	2016-Present

- Vice-chair, Committee on LGBT Matters, Massachusetts Medical Society 2009-15
- Helped steer policy and education efforts to benefit Massachusetts' LGBT+ community
- Co-President, Kinsey 2-6ers, Harvard Medical School 2009-10
- Crafted social and educational programming to develop a community of support for LGBT medical students and to fill a curricular gap on LGBT health disparities
 - Nationally-recognized advocacy efforts resulted in the formation of an LGBT center with a paid coordinator and revamped admissions procedures for the medical school

Residency and Medical School Service

- Founding faculty mentor, Mentorship Initiative for Diversity and Inclusion 2020-Present
- Founder, Stanford Psychiatry Clinician Scientists 2017-2020
- Convened all early-stage clinician scientists in the department and raised funds to host regular community-building, mentorship, and resource-sharing meetings.
 - Advocacy led to doubling of research funds and PGY-3 research time, and establishment of research-track faculty mentor.
- Member, Stanford Psychiatry Diversity & Inclusion Committee 2017-2020
- Elected Member, Harvard Medical School Aesculapian Club 2012-Present
- Member, Stanford Psychiatry Program Evaluation Committee 2016-18
- Co-President, Psychiatry Student Interest Group, Harvard Medical School 2009-10
- Student committee member, HMS LCME Accreditation Process 2009-10

University Service

- Committee member, Rhodes & Marshall Campus Committee 2017-Present

RESEARCH FUNDING

Pending

- SFARI Bridge to Independence Award (PI: Eshel) 9/2021-9/2024
- "Neural circuits of frustration and aggression" (flexible depending on faculty start date)

Current

- Brain & Behavior Research Foundation (NARSAD) Young Investigator Grant (PI: Eshel) 1/2021-1/2023
- "Neural circuits of frustration and aggression"
- NIH K08 MH123791 (PI: Eshel) 6/2020-5/2025
- "Neural circuits of frustration"

Past

- Stanford Society of Physician Scholars Grant (PI: Eshel) 5/2018-6/2019
- "Neural circuits of frustration and aggression"
- Stanford Department of Psychiatry Small Grant Award (PI: McGlynn) 1/2018-7/2019
- "LGBTQ Mental Health: Opportunities for Research and Practice"
- NIH F30 MH100729, NRSA Predoctoral Fellowship (PI: Eshel) 9/2013-9/2015
- "Neural circuits for computing dopamine prediction errors"
- Sackler Scholarship in Psychobiology (PI: Eshel) 5/2012-5/2014
- "Dissecting the neural circuit of addiction: an optogenetic approach"

PUBLISHED ORIGINAL RESEARCH ARTICLES

1. Faulkner, P; Huys, QJM; Renz, D; **Eshel, N**; Pilling, S; Dayan, P; Roiser, JP (in press). "A comparison of 'pruning' during multi-step planning in depressed and healthy individuals." *Psychological Medicine*.
Role: Developed behavioral task and analysis pipeline

2. **Eshel, N***; Maron-Katz, A*; Wu, W*; Abu-Amara, D; Marmar, CR; Etkin, A (in press). "Neural correlates of anger expression in patients with PTSD." *Neuropsychopharmacology*. *Authors contributed equally
3. **Eshel, N***; Keller, C*; Wu, W*; Jang, J*; Mills-Finnerty, C; Huemer, J; Wright, R; Fonzo, G; Ichikawa, N; Wong, M; Yee, A; Shpigel, E; McTeague, L; Etkin, A (2020). "Global connectivity and local excitability changes underlie antidepressant effects of repetitive transcranial magnetic stimulation." *Neuropsychopharmacology* 45, 6: 1018-25. *Authors contributed equally
4. Lally, N; Huys, QJM; **Eshel, N**; Faulkner, P; Dayan, P; Roiser, JP (2017). "The Neural Basis of Aversive Pavlovian Guidance During Planning." *Journal of Neuroscience* 37, 42: 10215-29.
Role: Developed behavioral task and analysis pipeline
5. Watabe-Uchida, M*; **Eshel, N***; Uchida, N (2017). "Neural circuitry of reward prediction error." *Annual Review of Neuroscience* 40: 373-94. *Authors contributed equally
6. Honigberg, MC; **Eshel, N**; Luskin, MR; Shaykevich, S; Lipsitz, SR; Katz, JT (2017). "Curricular Time, Patient Exposure, and Comfort Caring for Lesbian, Gay, Bisexual, and Transgender Patients Among Recent Medical Graduates." *LGBT Health* 4, 3: 237-9.
Role: Developed survey, analyzed data, helped draft manuscript
7. **Eshel, N**; Tian, J; Bukwich, M; Uchida, N (2016). "Dopamine neurons share common response function for reward prediction error." *Nature Neuroscience* 19, 3: 479-86.
8. **Eshel, N**; Bukwich, M; Rao, V; Hemmelder, V; Tian, J; Uchida, N (2015). "Arithmetic and local circuitry underlying dopamine prediction errors." *Nature* 525, 7568: 243-6.
9. Huys, QJM; Lally, N; Faulkner, P; **Eshel, N**; Seifritz, E; Gershman, SJ; Dayan, P; Roiser, JP (2015). "Interplay of approximate planning strategies." *Proceedings of the National Academy of Sciences* 112, 10: 3098-103.
Role: Developed and piloted behavioral task.
10. D'Ardenne, K; **Eshel, N**; Luka, J; Lenartowicz, A; Nystrom, LE; Montague, P.R.; Cohen, JD (2012). "Role of prefrontal cortex and the midbrain dopamine system in working memory updating." *Proceedings of the National Academy of Sciences* 109, 49: 19900-9.
Role: Developed behavioral task, collected and analyzed TMS data
11. Huys, QJM*; **Eshel, N***; O'Nions, E; Sheridan, L; Dayan, P; Roiser, JP (2012). "Bonsai trees in your head: how the Pavlovian system sculpts goal-directed choices by pruning decision trees." *PLoS Computational Biology* 8, 3: e1002410. *Authors contributed equally
12. **Eshel, N**; Ruff, CC; Blankenburg, F; Driver, J (2010). "Effects of parietal TMS on somatosensory judgments challenge interhemispheric rivalry accounts." *Neuropsychologia* 48, 12: 3470-81.
13. **Eshel, N**; Roiser, J (2010). "Reward and Punishment Processing in Depression." *Biological Psychiatry* 68, 2: 118-24.
14. Blankenburg, F; Ruff, CC; Bestmann, S; Bjoertomt, O; **Eshel, N**; Josephs, O; Weiskopf, N; Driver, J (2008). "Interhemispheric Effect of Parietal TMS on Somatosensory Response Confirmed Directly with Concurrent TMS-fMRI." *Journal of Neuroscience* 28, 49: 13202-8.
Role: Collected and analyzed TMS data
15. **Eshel, N**; Nelson, E; Blair, J; Pine, DS; Ernst, M (2007). "Neural substrates of choice selection in adolescents and adults: development of the ventrolateral prefrontal and anterior cingulate cortices." *Neuropsychologia* 45, 6: 1270-9.
16. **Eshel, N**; Daelmans, B; de Mello, MC; Martines, J (2006). "Responsive parenting: interventions and outcomes." *Bulletin of the World Health Organization* 84, 12: 991-8.

17. Ernst, M; Luckenbaugh, D; Moolchan, ET; Leff, MK; Allen, R; **Eshel, N**; London, ED; Kimes, A (2006). "Behavioral Predictors of Substance Use Initiation in Adolescents with and without Attention-Deficit/Hyperactivity Disorder." *Pediatrics* 117, 6: 2030-39.
Role: Statistical analysis
18. Ernst, M; Dickstein, D; Munson, S; **Eshel, N**; Pradella, A; Jazbec, S; Pine, D; Leibenluft, E (2004). Reward-Related Processes in Pediatric Bipolar Disorder." *Journal of Affective Disorders* 82S: S89-S101.
Role: Helped develop behavioral task
19. Ernst, M; Nelson, E; McClure, E; Monk, C; Munson, S; **Eshel, N**; Zarah, E; Leibenluft, E; Zametkin, A; Towbin, K; Blair, J; Charney, D; Pine, D (2004). "Choice Selection and Reward Anticipation: an fMRI Study." *Neuropsychologia* 42, 12: 1585-97.
Role: Helped develop behavioral task and analyze fMRI data

ORIGINAL RESEARCH ARTICLES UNDER REVIEW

1. Nilsson, SRO; Goodwin, NL; Choong, JJ; Hwang, S; Wright, HR; Norville, ZC; Tong, X; Lin, D; Bentzley, BS; **Eshel, N**; McLaughlin, RJ; Golden, SA (under review). "Simple Behavioral Analysis (SimBA) — an open source toolkit for computer classification of complex social behaviors in experimental animals." Submitted to bioRxiv April 19, 2020. <https://doi.org/10.1101/2020.04.19.049452>
Role: Provided fiber photometry data synchronized to behavior

PUBLISHED PEER-REVIEWED COMMENTARY

1. Morris, N; **Eshel, N** (2020). "Intervene or Innovate: A Dilemma for Psychiatrists-in-Training". *Academic Psychiatry* 44, 5: 632-33.
2. **Eshel, N**; Leibenluft, E (2020). "New frontiers in irritability research: From cradle to grave and bench to bedside." *JAMA Psychiatry* 77, 3: 227-8.
3. Wang, AR; Groome, A; Taniguchi, L; **Eshel, N**; Bentzley, BS (2020). "The role of dopamine in reward-related behavior: shining new light on an old debate." *Journal of Neurophysiology* 124, 2: 309-11.
Role: co-wrote manuscript
4. Morris, N; **Eshel, N** (2019). "Physicians talking with their partners about patients." *JAMA* 322, 15: 1447-48.
5. **Eshel, N**; Steinberg, EE (2018). "Learning what to approach." *PLOS Biology* 16, 10: e3000043.
6. **Eshel, N** (2016). "Trial and Error: Optogenetic techniques offer insight into the dopamine circuit underlying learning." *Science* 354, 6315: 1108-9.
7. **Eshel, N**; Marcovitz, DE; Stern, TA (2016). "Psychiatric consultations in less-than-private places: Challenges and unexpected benefits of hospital roommates." *Psychosomatics* 57, 1: 97-101.
8. **Eshel, N**; Tian, J (2014). "Dopamine gates sensory representations in cortex." *Journal of Neurophysiology* 111, 11: 2161-3.
9. Uchida, N; **Eshel, N**; Watabe-Uchida, M (2013). "Division of labor for division: inhibitory interneurons with different spatial landscapes in the olfactory system." *Neuron* 80, 5: 1106-9.
Role: co-wrote manuscript
10. **Eshel, N**; Tian, J; Uchida, N (2013). "Opening the black box: dopamine, predictions, and learning." *Trends in Cognitive Sciences* 17, 9:430-1.

BOOKS AND BOOK CHAPTERS

1. Shah, R; **Eshel, N**; McGlynn, L (2018). "LGBTQ Students." *University Student Mental Health: A guide for psychiatrists, psychologists, and leaders serving higher education*. Ed. Laura W. Roberts. American Psychiatric Association.
Role: wrote section on "Coming out" and edited manuscript
2. Uchida, N; Tian, J; **Eshel, N**. "Reward and Decision Encoding in Basal Ganglia: Insights from Optogenetics and Viral Tracing Studies in Rodents." *Decision Neuroscience: An Integrative Approach*, Ed. Dreher, J-C, & Tremblay, L. Waltham, MA: Academic Press (2016).
3. **Eshel, N**. *Learning: The Science Inside*. Washington, D.C.: American Association for the Advancement of Science, 2007.
4. Munson, S; **Eshel, N**; Ernst, M. "Chapter 7: Ethics of PET research in children." *Practical Pediatric PET Imaging*, Ed. Charron, M. Cambridge, MA: Springer, 2006. 72-91.
Role: wrote section on optimizing risks and benefits

INVITED PRESENTATIONS

1. Wang, A; Bentzley, BS; **Eshel, N** (2021). "Dopamine Release in the Dorsolateral Striatum Predicts and Tracks Individual Variability in Reward Demand." Society of Biological Psychiatry Annual Meeting, virtual poster presentation.
2. Norville, Z; Bentzley, BS; Malenka, RC; **Eshel, N** (2021). "Serotonin Neuron Stimulation Reduces Aggressive Behavior in a Resident-Intruder Assay." Society of Biological Psychiatry Annual Meeting, virtual poster presentation.
3. **Eshel, N** (2021). "Navigating Psychiatry as Minority or Underrepresented: Career Panel Discussion." Northern California Psychiatric Society, virtual panel discussion.
4. **Eshel, N** (2021). "Neural Correlates of Anger Expression in Patients with PTSD." International Society for Research on Aggression World Meeting, Ottawa, Canada (postponed due to COVID).
5. **Eshel, N** (2020). "Mouse Model of Frustration Reveals a Role for Striatal Dopamine at the Intersection of Reward and Aggression." Invited panel presentation, American College of Neuropsychopharmacology Annual Meeting (virtual due to COVID).
6. **Eshel, N** (2020). "Aggression: Gaps in our Knowledge and Strategies to Enhance Research in the Field." Invited participant in a study group at the American College of Neuropsychopharmacology Annual Meeting (virtual due to COVID).
7. **Eshel, N**; Bentzley, BS (2020). "Dopamine at the intersection of reward and aggression." Invited talk at NeuroChoice, Stanford University.
8. **Eshel, N**; Bentzley, BS (2020). "Dopamine at the intersection of reward and aggression." Invited talk at the University of Minnesota's NeuroPRSMH (neuroplasticity research in support of mental health) group.
9. Bentzley, BS; **Eshel, N** (2020). "Reaching for the STAARs: Building a Collaborative Lab in Residency." Psychiatry Grand Rounds, Stanford.
10. **Eshel, N** (2020). "Neural correlates of anger in veterans with PTSD." Invited talk, Research Resident Training Program Works in Progress Dinners, UCSF.
11. **Eshel, N** (2019). "Neural correlates of anger in patients with PTSD." Poster at ACNP, Orlando, FL.
12. **Eshel, N** (2019). "Anger Expression in Patients with PTSD: Clinical, Cognitive, and Neural Correlates." Poster at Biological Psychiatry, Chicago, IL.
13. **Eshel, N**; Petersen, D; Shah, R; McGlynn, L (2019). "Addressing Microaggressions Toward Sexual and Gender Minorities: Caring for LGBTQ+ Patients and Providers." Panel at APA Annual Meeting, San Francisco, CA.

14. **Eshel, N** (2018). "Reward prediction errors: dopamine circuitry and emotional state." Poster at NIMH Outstanding Resident Award Program, Bethesda, MD.
15. **Eshel, N** (2017). "Effects of rTMS on resting-state functional connectivity in patients with major depression." Poster at Biological Psychiatry, San Diego, CA.
16. **Eshel, N** (2017). "LGBT Health: Terminology and Concepts." Department of Psychiatry & Behavioral Sciences, Stanford University, Stanford, CA.
17. **Eshel, N** (2016). "Dopamine and the neural circuit underlying learning." *Science* and SciLifeLab Symposium, Stockholm, Sweden.
18. **Eshel, N** (2016). "Dopamine prediction errors: arithmetic and local circuitry." Larry Katz Memorial Lecture, Neuronal Circuits meeting, Cold Spring Harbor.
19. **Eshel, N** (2016). "Dopamine and the neural circuit underlying learning." Affective Brain Lab, University College London (online lecture).
20. **Eshel, N**; Bukwich, M; Rao, V; Hemmelder, V; Tian, J; Uchida, N (2015). "Arithmetic and local circuitry underlying dopamine prediction errors." Hot Topics oral presentation at the American College of Neuropsychopharmacology, Hollywood, FL.
21. **Eshel, N** (2015). "Dopamine and the neural circuit underlying learning." Invited talk at Columbia Psychiatry, NY.
22. **Eshel, N** (2015). "Dopamine and the neural circuit underlying learning." Invited talk at the Department of Psychiatry & Behavioral Sciences, Stanford University, CA.
23. **Eshel, N** (2015). "Dopamine and the neural circuit underlying learning." Invited talk at TBI Research Workgroup, Spaulding Hospital, Boston.
24. **Eshel, N**; Uchida, N (2015). "Neural circuit mechanism underlying dopamine prediction errors." Invited talk at Biological Psychiatry, Toronto, Canada.
25. Matsui, J; **Eshel, N**; Honigberg, M; Connelly, M (2015). "Convening a Task Force to Assess the Needs of LGBT Constituents at Harvard Medical School." Poster presentation at Association of American Medical Colleges Conference, San Juan, Puerto Rico.
Role: Wrote section on LGBT status at HMS
26. **Eshel, N**; Tian, J.; Uchida, N. (2014). "Arithmetic of dopamine prediction errors: subtraction with scaled inhibition." Invited talk at Computational and Systems Neuroscience (COSYNE), Salt Lake City, UT.
27. **Eshel, N**; Uchida, N. (2013). "VTA GABA neurons support dopamine prediction error calculations." Invited talk at Assembly and Function of Neuronal Circuits, Ascona, Switzerland.
28. **Eshel, N**; Honigberg, M. (2013). "Supporting LGBT Students and LGBT Health." Invited talk at *Healing Healthcare Disparities Through Education*, a Harvard Medical School Continuing Medical Education conference.
29. **Eshel, N**; Uchida, N. (2013). "Testing the role of VTA GABA neurons in dopamine prediction error calculations." Poster presentation at Gordon Conference on Catecholamines, Mt Snow, VT.
30. **Eshel, N** (2013). "Testing the role of VTA GABA neurons in dopamine prediction error calculations." Neurolunch talk at Center for Brain Sciences, Harvard University, MA.
31. **Eshel, N** (2013). "Arithmetic of dopamine prediction errors: subtraction with scaled inhibition." Computational neuroscience seminar at Center for Brain Sciences, Harvard University, MA.
32. **Eshel, N**; Honigberg, M (2012). "LGBT Affairs in Medical Education." Invited talk at *Healing Healthcare Disparities Through Education*, a Harvard Medical School Continuing Medical Education conference, Boston, MA.

33. **Eshel, N** (2011). "To prune or not to prune: Pavlovian influences on goal-directed decision-making." Invited talk at N. Daw's lab, NYU Ctr for Neural Science, NY.
34. **Eshel, N**; Honigberg, M (2011). "LGBT Affairs in Medical Education." Invited talk at *Healing Healthcare Disparities Through Education*, a Harvard Medical School Continuing Medical Education conference, Boston, MA.
35. Huys, Q; **Eshel, N**; Dayan, P; Roiser, J (2010). "Bonsai Trees: How the Pavlovian system sculpts sequential decisions." Poster presentation at Computational and Systems Neuroscience (COSYNE) 2010, Salt Lake City, UT.
Role: developed behavioral task, helped analyze data
36. **Eshel, N**; Honigberg, M. (2010). "Cultural Competence in Caring for LGBT Individuals." Children's Hospital Boston Grand Rounds, Boston, MA.
37. **Eshel, N**; Ruff, CC; Blankenburg, F; Driver, J (2009). "Parietal TMS reveals excitatory interhemispheric interactions during somatosensory processing." Invited talk at the 15th annual Organization for Human Brain Mapping conference, San Francisco, CA.
38. **Eshel, N**; Huys, QJ; Dayan, P; Roiser, J (2009). "Serotonin, pruning, and depression: a computational approach." Invited talk at the Dutch Endo-Neuro-Psycho meeting, Doorwerth, Netherlands.
39. **Eshel, N** (2009). "Hemispheres in the balance: TMS reveals bilateral influences on somatosensation." Invited talk at the Institute of Cognitive Neuroscience, University College London.
40. **Eshel, N** (2008). "Transiently disrupting right prefrontal cortex interferes with updating of working memory." Invited talk at the 2008 Neuroscience and Cognitive Control conference, Ghent, Belgium.
41. **Eshel, N**; Luka, J; Lenartowicz, A; Nystrom, LE; Cohen, JD (2008). "Transiently disrupting right prefrontal cortex interferes with updating of working memory." Poster at Human Brain Mapping, Melbourne, Australia.
42. Ernst, M; **Eshel, N** (2004). "Adolescence: Vulnerable Reward System as a Risk Factor for Psychopathology." Presentation at the October, 2004 conference of the American Association of Child and Adolescent Psychiatry, Washington, DC.
43. Ernst, M; Pine, D; Nelson, E; Monk, C; McClure, E; **Eshel, N**; Leibenluft, E; Charney, D; Hoberman, A; Montgomery, LA; Munson, S (2003). "Anxiety and reward circuitry." Poster at Soc. of Biological Psychiatry Annual Mtg., San Francisco, CA.
Role: Produced slides on "Wheel of Fortune" task
44. Nelson, E; Monk, C; McClure, E; Zarahn, E; Leibenluft, E; Munson, S; **Eshel, N**; Charney, D; Pine, D; Ernst, M (2003). "Risky business: Event-related fMRI of decision, anticipation and attainment in a reward task." Poster at Soc. of Biological Psychiatry Annual Mtg., San Francisco, CA.
Role: Helped develop "Wheel of Fortune" task

REVIEW SERVICE

Associate Editor, <i>Journal of Gay and Lesbian Mental Health</i>	2019-Present
Ad-hoc Reviewer	2011-Present
<ul style="list-style-type: none"> • <i>Science, Nature, Academic Psychiatry, Current Biology, PLOS Biology, JAMA Psychiatry, Biological Psychiatry, Social Cognitive and Affective Neuroscience, Psychological Medicine, Neuroscience and Biobehavioral Reviews, and Psychophysiology</i> 	

TEACHING & MENTORING

Instructor, Psychiatry Residency PGY-4 Didactics	2020-Present
<ul style="list-style-type: none"> • Clinical issues in LGBTQIA+ care 	

Teaching Fellow for Prof. Naoshige Uchida, Harvard University 2012

- MCB145: Neurobiology of Perception & Decision-Making
- Awarded Certificate of Distinction in Teaching

Undergraduate Mentees

Zane Norville	Artificial intelligence-driven behavioral analysis	2018-Present
Candice (Korleki) Akiti	Extracellular recording of dopamine neurons	2013
Elise Molnar	Microscopic examination of mouse brain slices	2012-13

Graduate Student Mentees

Daniel Cardozo-Pinto	Fiber photometry of dopamine and serotonin	2020-Present
Peter Henderson	Computational models of reinforcement learning	2018-19
Mike Bukwich	Extracellular recordings and optogenetics	2014-15
Kee Wui Huang	Mouse surgeries and behavioral experiments	2013
Minh Vong	Mouse behavioral experiments	2012-13

Medical Student Mentees

Gavin Touponse	Dopamine self-stimulation	2021-Present
Allan Wang	Striatal involvement in learning; aggression reward	2019-Present
Marija Kamceva	Behavioral and neural analysis of female aggression	2018-Present

Research Assistant Mentees

Alexa Groome	Mouse behavior, histology, fiber photometry	2019-Present
Lara Taniguchi	Mouse behavior, histology, fiber photometry	2019-Present
Joseph Luka	fMRI-guided transcranial magnetic stimulation	2006-07

PROFESSIONAL ASSOCIATIONS

Medicine:

American Medical Association	2011-Present
Gay & Lesbian Medical Association	2010-Present

Psychiatry:

Society of Biological Psychiatry	2017-Present
Association of Gay & Lesbian Psychiatrists	2017-Present
American Psychiatric Association	2016-Present
Northern California Psychiatric Society	2016-Present
American College of Neuropsychopharmacology (Travel Awardee)	2015-Present

Neuroscience:

Society for Neuroscience	2006-Present
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LICENSES AND CERTIFICATIONS

Diplomate, American Board of Psychiatry and Neurology	2020-Present
Stanford Clinical TMS Training Course	2019-Present
X-Waiver for Buprenorphine	2018-Present
California Medical License (A151211)	2017-Present