

## CURRICULUM VITAE: ANDREW D. HUBERMAN, Ph.D.

### CONTACT INFORMATION

Huberman Lab  
Department of Neurobiology  
Sherman Fairchild Science Building D227A  
Stanford University School of Medicine  
Stanford, CA 94305

Email: adh1@stanford.edu

### EDUCATION/DEGREES

(1989- 1993) Henry M. Gunn High School, Palo Alto, CA.  
(1993- 1998) B.A., University of California, Santa Barbara, CA.  
(1998- 2000) M.A., University of California, Berkeley, CA.  
(2000- 2004) Ph.D., Neuroscience, University of California, Davis, CA.

### PROFESSIONAL POSITIONS

(2005- 2010) Postdoctoral Fellow, Stanford University School of Medicine, Department of Neurobiology  
  
(2011- 2015) Assistant Professor, University of California, San Diego, Department of Neurosciences, Neurobiology Section in the Division of Biological Sciences, and Department of Ophthalmology  
  
(2016- present) Associate Professor (with tenure), Stanford University School of Medicine, Department of Neurobiology, Department of Ophthalmology, BioX & The Stanford Neurosciences Institute

### RESEARCH PUBLICATIONS (most recent listed first)

36. Dhande OS, Seabrook TA, Phan AH, Salay LD, Ishiko N, Nguyen PL, Wang JT, Evans S, **Huberman AD** (2019) Tbx20 is required for assembly of functionally-antagonistic visual circuits controlling pupil dynamics. **Cell Reports**, *submitted (under review)*.
35. El-Danaf RN, **Huberman AD** (2019) Sub-topographic maps for regionally enhanced analysis of visual space in the mouse retina. **The Journal of Comparative Neurology**, *in press*. doi: 10.1002/cne.24457
34. Dhande OS, Stafford BK, Franke K, El-Danaf, Percival KA, Phan AH, Li P, Hansen BJ, Nguyen PL, Berens P, Taylor WR, Callaway E, Euler T, **Huberman AD** (2019) Molecular fingerprinting of On-Off direction selective retinal ganglion cells across species and relevance to primate visual circuits. **Journal of Neuroscience**, *in press*. doi: 10.1523/JNEUROSCI.1784-18.2018.
33. Yu WQ, El-Danaf RN, Okawa H, Pacholec JM, Matti U, Schwarz K, Odermatt B, Dunn FA, Lagnado L, Schmitz F, **Huberman AD**, Wong ROL (2018) Synaptic convergence patterns onto retinal ganglion cells are preserved despite topographic variation in pre- and postsynaptic territories. **Cell Reports**, 25: 2017-2026. doi: 10.1016/j.celrep.2018.10.089.
32. Salay LD, Ishiko N, **Huberman AD** (2018) A midline thalamic circuit determines reactions to visual threat. **Nature**, 557: 183-189. [Article] [featured]
31. Seabrook TA, Dhande OS, Ishiko N, Wooley VP, Nguyen PL, **Huberman AD** (2017) Strict independence of parallel and poly-synaptic axon-target matching during visual reflex circuit assembly. **Cell Reports**, 21: 3049- 3064. [cover article]

30. Liu BH, **Huberman AD**, Scanziani M (2016) Cortico-fugal output from visual cortex promotes plasticity of innate motor behavior. **Nature**, 538: 383-387.
29. Lim J-H, Nguyen PL, Lien BV, Wang C, Zukor K, He Z, **Huberman AD** (2016) Neural activity promotes long distance, target-specific regeneration of adult retinal axons. **Nature Neuroscience**, 19: 1073-84. [featured article]
28. JT Chung Yiu, Rudolph S, Dhande OS, Lapan S, Drokhyansky E, **Huberman AD**, Regehr W, Cepko C (2015) Cell type-specific manipulation with GFP-dependent Cre recombinase. **Nature Neuroscience**, 18: 1334-41.
27. Osterhout JA, Stafford BS, Nguyen PL, Yoshihara Y, **Huberman AD** (2015) Contactin-4 mediates axon-target specificity and functional development of the accessory optic system. **Neuron**, 86: 985-99. [featured article]
26. Sun LO, Brady CM, Cahill H, Sakuta H, Dhande OS, Noda M, **Huberman AD**, Nathans J, Kolodkin AL (2015) Functional Assembly of accessory optic system circuitry critical for compensatory eye movements, **Neuron**, 86: 971-84. [featured article]
25. El-Danaf RN, **Huberman AD** (2015) Characteristic patterns of dendritic remodeling in early-stage glaucoma: evidence from genetically identified retinal ganglion cell types. **Journal of Neuroscience**, 35: 2329-2343. [cover article]
24. Osterhout JA, El-Danaf RN, Nguyen PL, **Huberman AD** (2014) Birthdate and outgrowth timing predict cellular mechanisms of axon-target matching in the developing visual pathway. **Cell Reports**, 8: 1006-1017. [cover article]
23. Cruz-Martin A, El-Danaf RN, Osakada F, Dhande OS, Sriram B, Nguyen PL, Callaway EM, Ghosh A, **Huberman AD** (2014) A dedicated circuit links direction selective retinal ganglion cells to primary visual cortex. **Nature**, 507: 358-361. [cover article]
22. Dhande OS\*, Estevez M\*, El-Danaf RN, Nguyen PL, Quatrocci L, Berson DM, **Huberman AD** (2013) Genetic dissection of a retinal output circuit for image stabilization. **Journal of Neuroscience**, 33: 17797-813. [featured article]
21. Piscopo DM, El-Danaf RN, **Huberman AD\***, Niell CM\* (2013) Diverse visual features encoded in mouse lateral geniculate nucleus. **Journal of Neuroscience**, 33: 4642-4656.
20. Beier K, El-Danaf RN, **Huberman AD**, Demb J, Cepko CL (2013) Trans-synaptic tracing with vesicular stomatitis virus reveals novel retinal circuitry. **Journal of Neuroscience**, 33: 35-51.
19. Osterhout JA, Josten NJ, Yamada J, Pan F, Wu S-W, Nguyen PL, Panagiotakos G, Inoue YU, Egusa SF, Volgyi B, Inoue T, Bloomfield S, Barres BA, Berson DM, Feldheim DA\*, **Huberman AD\*** (2011) Cadherin-6 mediates axon-target matching in a non-image-forming visual circuit. **Neuron**, 71: 632-639. [featured article]
18. Koch SM, Dela Cruz CG, Hnasko TS, Edwards RH, **Huberman AD**, Ullian EM (2011) Pathway-specific genetic attenuation of glutamate release alters select features of competition-based visual circuit refinement. **Neuron**, 71: 1-8.
17. Rivlin-Etzion M, Zhou K, Wei W, Elstrott J, Nguyen PL, Barres BA, **Huberman AD\***, Feller MB\* (2011) Transgenic mice reveal unexpected diversity of on-off direction selective retinal ganglion cell

subtypes and brain structures involved in motion processing. **Journal of Neuroscience**, 31: 8760-9.

16. Blank M, Fuerst PG, Stevens B, Nouri N, Kirkby L, Warriar D, Barres BA, Feller MB, **Huberman AD**, Burgess RW, Garner CG (2011) The down syndrome critical region regulates retinogeniculate refinement. **Journal of Neuroscience**, 31: 5764-5776.

15. Cheng TW, Liu XB, Faulkner RL, Stephan AH, Barres BA, **Huberman AD**, Cheng HJ (2010) Emergence of laminar specific retinal ganglion cell connectivity by axon arbor retraction and synapse elimination. **Journal of Neuroscience**, 30: 16376-16382.

14. **Huberman AD\***, Wei W\*, Elstrott J\*, Stafford BK, Feller MB, Barres BA (2009) Genetic identification of an On-Off direction selective retinal ganglion cell subtype reveals a layer-specific subcortical map of posterior motion. **Neuron**, 62: 327-334.

13. Eroglu C, Allen NJ, Susman MW, O'Rourke NA, Park CY, Oxkan E, Chakraborty C, Mulinyawe SB, Annis DS, **Huberman AD**, Green EM, Lawler J, Dolmetsch R, Garcia KC, Smith SJ, Luo ZD, Rosenthal A, Mosher DF, Barres BA (2009) Gabapentin receptor alpha2delta-1 is a neuronal thrombospondin receptor responsible for excitatory CNS synaptogenesis. **Cell**, 139: 380-92.

12. **Huberman AD**, Manu M, Koch SM, Susman MW, Brosius Lutz A, Ullian EM, Baccus SA, Barres BA (2008) Architecture and activity-mediated refinement of axonal projections from a mosaic of genetically-identified retinal ganglion cells. **Neuron**, 59: 425-438. [featured article]

11. Stevens B, Allen NJ, Vazquez LE, Howell GR, Christopherson KS, Nouri N, Micheva KD, Mehalow AK, **Huberman AD**, Stafford B, Sher A, Litke AM, Lambris JD, Smith SJ, John SW, Barres BA (2007) The classical complement cascade mediates CNS synapse elimination. **Cell**, 131: 1164-78.

10. Bjartmar L\*, **Huberman AD\***, Ullian EM\*, Renner R, Lu X, Xu W, Stellwagen D, Prezioso J, Susman MW, Stokes C, Cho R, Copenhagen D, Worley P, Malenka RC, Ball S, Peachey NS, Chapman B, Nakamoto M, Barres BA, Perin MS (2006) Neuronal pentraxins mediate synaptic refinement in the developing visual system. **Journal of Neuroscience**, 26: 6269-81.

9. **Huberman AD**, Speer CM, Chapman B (2006) Spontaneous retinal activity mediates development of ocular dominance columns and binocular receptive fields in V1. **Neuron**, 52: 247-5. [featured article]

8. Warland DK, **Huberman AD**, Chalupa LM (2006) Dynamics of spontaneous activity in the fetal macaque retina during development of retinogeniculate pathways. **Journal of Neuroscience**, 26: 5190-7.

7. **Huberman AD**, Murray KD, Warland DK, Feldheim DA, Chapman B (2005) Ephrin-As mediate targeting of eye-specific projections to the lateral geniculate nucleus. **Nature Neuroscience**, 8: 1013-1021.

6. **Huberman AD**, Dehay C, Berland M, Chalupa LM, Kennedy H (2005) Early and rapid targeting of eye-specific axonal projections to the lateral geniculate nucleus in the fetal macaque. **Journal of Neuroscience**, 25: 4014-4023.

5. **Huberman AD**, Wang GY, Liets LC, Collins OA, Chapman B, Chalupa LM (2003) Eye-specific retinogeniculate segregation independent of normal neuronal activity. **Science**, 300: 994-998.

4. Muscat L, **Huberman AD**, Jordan CL, Morin LP (2003) Crossed and uncrossed retinal projections to the hamster circadian system. **Journal of Comparative Neurology**, 466: 513- 24.

3. **Huberman AD**, Stellwagen D, Chapman B (2002) Decoupling eye-specific segregation from lamination in the lateral geniculate nucleus. **Journal of Neuroscience**, 22: 9419-29.
2. Williams TJ, Pepitone ME, Christensen SE, Cooke BM, **Huberman AD**, Breedlove NJ, Breedlove TJ, Jordan CL, Breedlove SM (2001) Finger-length ratios and sexual orientation. **Nature**, 404: 455-6.
1. **Huberman A**, Turek VF, Carlisle HJ (2000) Clozapine does not induce a motor impairment in operant responding for heat reinforcement. **Pharmacology, Biochemistry and Behavior**, 67: 307-12.

#### INVITED SCIENTIFIC REVIEW ARTICLES

26. Salay LD, Jung HY, and **Huberman AD** (2019) Merging sensory perception with internal states to guide action. **Neuron**, *in preparation (formally invited)*.
25. Jung H-Y, **Huberman AD** (2018) A comprehensive, unbiased view of neural networks: more than meets the eye. **Neuron**, 100: 1019-1021.
24. Varadajaran S, **Huberman AD** (2018) Assembly and repair of eye-to-brain connections. **Current Opinion in Neurobiology**, 53: 198-209.
23. Varadajaran S, **Huberman AD** (2017) Uniformity from diversity: vast-range light sensing in an individual neuron type. **Cell**, 171: 738-740.
22. Seabrook TA\*, Burbridge TJ\*, Crair MC, **Huberman AD** (2017) Architecture, function and assembly of the mouse visual system. **Annual Review of Neuroscience**, 40: 499-538.
21. Laha B, Stafford BK, **Huberman AD** (2017) Regenerating optic pathways from the eye to the brain. **Science**, 356: 1031-1034.
20. Stafford BK, **Huberman AD** (2017) Signal integration in thalamus: labeled lines go cross-eyed and blurry. **Neuron**, 93: 717-720.
19. Ishiko N, **Huberman AD** (2016) Life goes by: a visual circuit for signaling perceptual- motor mismatch: **Nature Neuroscience**, 19: 177-9.
18. **Huberman AD**, El-Danaf RN (2015) Assassins of eyesight. **Nature**, 527: 456-457.
17. Dhande OS, Stafford BS, Lim A, **Huberman AD** (2015) Retinal and subcortical contributions to visual feature selectivity. **Annual Review of Vision Science**, 1: 291-328.
16. Salay LD, **Huberman AD** (2015) When visual circuits collide: motion processing in the brain. **Cell**, 162: 241-243.
15. Seabrook TA, **Huberman AD** (2015) Cortical cliques: a few plastic neurons get all the action. **Neuron**, 86: 1113-6.
14. Wernet MF, **Huberman AD**, Desplan C (2014) So many pieces, one puzzle: cell type specification and visual circuitry in flies and mice. **Genes and Development**, 28: 2565-2584.
13. Dhande OS, **Huberman AD** (2014) Visual Circuits: mouse retina no longer a level playing field. **Current Biology**, 24: R155-6.
12. Dhande OS, **Huberman AD** (2014) Retinal ganglion cell maps in the brain: implications for visual

processing. **Current Opinion in Neurobiology**, 24: 133-142.

11. El-Danaf RN, **Huberman AD** (2012) Wiring visual circuits, one eye at a time. **Nature Neuroscience**, 15: 1-2.
10. Cruz-Martin A, **Huberman AD** (2012) Visual Cognition: rats compare shapes among the crowd. **Current Biology**, 22: R18-20.
9. **Huberman AD**, Niell CM (2011) What can mice tell us about how vision works? **Trends in Neurosciences**, 34: 464-73.
8. Josten NJ, **Huberman AD** (2010) Milestones and mechanisms for generating specific synaptic connections between the eyes and the brain. **Current Topics in Developmental Biology**, 93: 229-59.
7. **Huberman AD**, Clandinin TC, Baier H (2010) Molecular and cellular mechanisms of lamina-specific axon targeting. **Cold Spring Harbor Perspectives in Biology**, 2 (3): a001743.
6. **Huberman AD** (2009) Mammalian DSCAMs: They won't help you find a partner, but they'll guarantee you some personal space. **Neuron**, 64: 441-43.
5. **Huberman AD**, Feller MB, Chapman B (2008) Mechanisms underlying development of visual maps and receptive fields. **Annual Review of Neuroscience**, 31: 479-509.
4. **Huberman AD** (2007) Mechanisms of eye-specific visual circuit development. **Current Opinion in Neurobiology**, 17: 73-80.
3. **Huberman AD** (2006) *Nob* mice wave goodbye to eye-specific segregation. **Neuron**, 50: 55-177.
2. **Huberman AD** (2006) Target-derived cues instruct synaptic differentiation. **Journal of Neuroscience**, 26: 1063-1064.
1. **Huberman AD**, McAllister AK (2002) Neurotrophins and visual cortical plasticity. **Progress in Brain Research**, 138: 39-51.

#### INVITED PERSPECTIVES ON SCIENCE & SCIENTISTS

4. **AD Huberman** (2019) The landscape and future of options for Neuroscience Ph.D.'s Part 1: Biotech. **Neuron**, *formally invited*.
3. **AD Huberman** (2019) Career Tribute: Harvey Karten. **Journal of Comparative Neurology**, *in press*.
2. **AD Huberman** (2019) Introduction: Retinal Special Issue I. **Journal of Comparative Neurology**, *in press*.
1. **AD Huberman** (2018) Ben Barres: Neurobiologist who advocated for gender equality in science. **Nature**, 553: 1.

#### LABORATORY GRANT SUPPORT/FUNDING

*Current and ongoing:*

NIH/NEI R01 EY026100 "Promoting optic nerve and retinofugal pathway regeneration"  
(4 years: 2016, 2017, 2018, 2019) (Role: PI) ~\$1,000,000 (direct support)

NIH/NEI R01 EY027713 “Molecular and functional regeneration of the accessory optic pathway” (4 years: 2018, 2019, 2020, 2021) (Role: Co-PI, A. Kolodkin) ~\$1,000,000 (direct support per PI)

Gilbert Vision Restoration Initiative “Optic nerve repair to reverse blindness in Neurofibromatosis 1” (3 years (renewable): 2019, 2020, 2021) (Role: PI) \$900,000 (direct support)

NIH U01 EY27261 “Molecular discovery for optic nerve regeneration” (3 years: 2016, 2017, 2018) (Role: Co-PI, with J. Goldberg, H. Cline, Larry Benowitz) \$150,000 (direct support)

Stanford Discovery Award “Virtual Reality for Assessing Visual Threat in Humans” (2 years: 2019, 2020) (Role: PI) ~\$160,000 (direct support)

*Completed:*

Roche “High throughput visual function assays for the study of retinal disease” (2013- 2014)

E. Matilda Ziegler Foundation “Development of optic pathway connections” (2011- 2013)

The Whitehall Foundation “Retino-geniculo-cortical pathways for sensing direction” (2012)

McKnight Scholar Award “Trans-synaptic circuits for processing directional motion” (2013-2015)

Pew Scholar Award “Target specificity in the mammalian visual system” (2013- 2016)

NIHU01 NS090562 “Vertically integrated approach to vision: microcircuits to behavior” (2015-2017)

NIH/NEI R01 EY022157 “Development of parallel retinofugal pathways” (2012- 2016)

Glaucoma Research Foundation “Biomarkers for Glaucoma” (2012- 2018)

*Pending:*

NIH/NEI R01 EY022157 “Subcortical circuits for merging visual perception and arousal” (renamed to reflect topic shift); revision to be resubmitted Feb, 2019. ~\$1,250,000 (direct support)

**HONORS & AWARDS**

Graduation with Honors and Distinction in Major (1998)

ARCS Foundation Graduate Fellowship Award (2003)

Allan G. Marr Prize for Best Ph.D. Dissertation, UCD (2005)

Helen Hay Whitney Postdoctoral Fellowship (2007- 2009)

Pew Biomedical Scholar Award (2013)

McKnight Neuroscience Scholar Award (2013)

Cogan Award for Contributions to Vision Science and Ophthalmology (2017)

**EDITORIAL BOARD APPOINTMENTS**

Current Biology (2011- present)

The Journal of Comparative Neurology (2015- present)

Cell Reports (2016- present)

Neural Development (2016- present)

The Journal of Neuroscience (Associate Editor: Systems/Circuits) (2013- 2018)

Current Opinion in Neurobiology (2016- 2018)

**MANUSCRIPT REVIEW**

Nature, Science, Cell, Neuron, Journal of Neuroscience, Nature Neuroscience, Cell Reports, Proceedings of the National Academy of Sciences USA, Journal of Neurophysiology, Journal of Comparative Neurology, Journal of Physiology, Visual Neuroscience, Neural Development, Nature Communications, Cerebral Cortex, ELife

## GRANT REVIEW COMMITTEES

NIH BRAIN Initiative Study Section R01/R24 Review (November 2018); NIH/NEI, SPC Study Section R01 Review (February, 2017; 2018); Brightfocus Foundation/NEI Audacious Goals Initiative Award Committee (2015); NIH/NEI, NTRC Study Section; R01/R21 review (June, 2015; September, 2015); NIH/NEI, SPC Study Section; R01/R21 review (2014); NIH/NEI, SPC Special Emphasis Panels; R01/R21 review (2012, 2013); NIH/NEI K99 and U13 review panel (July 2017; 2018); NIH BRAIN Initiative U01 Review (2018); Fight for Sight Pre- and Postdoctoral Fellowships (2011-present); Medical Research Council (UK) (2010) Raine Medical Research Foundation (2009); Wings of Life Foundation for Neural Regeneration (2008); Wellcome Trust (UK) (2011)

## INVITED SEMINARS & LECTURES

### *As postdoc:*

1. SFN, MiniSymposium Co-Chair, Washington DC, November 16, 2005
2. University of Oregon, Institute for Neuroscience Seminar Series, February 2, 2006
3. Virginia Commonwealth University, Neuroscience Seminar Series December 8, 2006
4. Optical Society of America Vision Meeting, Berkeley CA, September 18, 2007
5. Medical College of Wisconsin, Department of Ophthalmology, February 21, 2008
6. Cold Spring Harbor Laboratory, Neural Circuits Meeting, March 16, 2008
7. Brown University, Department of Neuroscience Dept. April 10, 2009
8. University of California, Berkeley, Department of Optometry, September 11, 2009
9. SFN Meeting, Mini-Symposium Co-Chair, Washington DC, November 16, 2009
10. Kings College London, Developmental Neurobiology Seminar Series, Dec 12, 2009
11. Max Planck Institute for Neurobiology, Seminar Series, Munich DE, March 26, 2010
12. ARVO Satellite Meeting on Ganglion Cell Development and Disease, April 30, 2010
13. FASEB Meeting on Retina and Visual Processing, Saxton's River VT, July, 2010
14. Kavli Institute: Neurobiology of the visual system, UC Santa Barbara, November 5, 2010
15. University of California, Los Angeles, Department of Neurobiology, December 3, 2010

### *As Assistant Professor:*

16. University of Virginia, Department of Biology Seminar Series, April 29, 2011
17. University of Washington, Neurobiology Seminar Series, May 19, 2011
18. CSHL: Structure, Function and Development of the Visual System, July 13, 2011
19. EMBO: Neural Circuit Development and Function, Ascona, Sept 25-29, 2011
20. UCLA, Jules Stein Eye Center Retreat (*Keynote Lecture*), Oct 29, 2011
21. Janelia Farm/HHMI, 'Constructing Neural Circuits' Meeting, April 30, 2012
22. UCLA, Neurobiology Dept. Conference on Microcircuits, May 17, 2012
23. Vanderbilt University, Vision Sciences Seminar Series May 23, 2012
24. Gordon Research Conference on Neural Development, August 12-17, 2012
25. INCF Workshop on Neuroinformatics, Munich, DE, September 12, 2012
26. University of Louisville, Neurobiology Seminar Series, December 13, 2012
27. Johns Hopkins, Department of Neuroscience Seminar Series, Feb 28, 2013
28. Janelia Farm/HHMI, Meeting on: Insect Vision, March 3-6, 2013
29. McGill University, Neuroscience Seminar Series, March 13, 2013
30. Sloan Kettering Cancer Center, Neurobiology Seminar Series, April 11, 2013
31. NYC Vision Seminar Series (Columbia, NYU, Cornell, SUNY), May 20, 2013
32. Cell Press Symposium: Genes, Circuits and Behavior, Toronto, June 3-5, 2013
33. Allen Institute for Brain Science: The Retina, August 11-13, 2013
34. Salk Institute for Biological Studies, Seminar Series, August 16, 2013

35. University of Minnesota, Department of Neuroscience Seminar, October 5, 2013
36. University of California, Berkeley, MCB Seminar Series, October 11, 2013
37. University of Chicago, Neurobiology Seminar Series, October 24, 2013
38. University of Basel and FMI, Neurobiology Seminar Series, November 21, 2013
39. University of California, Davis, Neuroscience Seminar Series, December 5, 2013
40. University of California, San Francisco, Ophthalmology, January 23, 2014
41. ARVO Symposium on Direction Selectivity, Orlando, FL, May 6, 2014
42. University of Miami, Neuroscience Seminar Series, May 23, 2014
43. FASEB: Retina and Visual Processing, Saxton's River VT, June 22-27, 2014
44. International Society for Developmental Neurobiology, Montreal, July 19, 2014
45. Janelia Farm/HHMI, Meeting on: Sensory Transformation, September 14-17, 2014
46. Weston Endowed Lecturer on Neurobiology of Glaucoma, October 7, 2014
47. Stanford, Ophthalmology and Vision Science, October 9, 2014
48. NIH/NINDS, Neuroscience Seminar Series, Oct 20, 2014
49. Yale University, MCB & Neurobiology Seminar Series, December 10, 2014
50. Glaucoma 360, "Biomarkers in Glaucoma" San Francisco, Feb 5, 2015
51. Stanford University, Neuroscience Seminar Series, February 12, 2015
52. Lasker Meeting on Biology of Glaucoma, Janelia/HHMI, March 9, 2015
53. George Washington University, Neuroscience Series, April 9, 2015
54. Caltech, Biology and Neuroscience Seminar Series, May 11, 2015
55. Institute de la Vision, INSERM/CNRS, Paris FR, September 4, 2015
56. Comparative Neural Circuits, Jackson Hole WY, September 18-20, 2015.
57. Ganglion Cell Classification Meeting, Sussex England, September 30, 2015
58. European Retina Meeting, Brighton England, October 2, 2015
59. University of Pittsburg School of Medicine, Fox Center for Visual Repair, Oct 14, 2015
60. Society for Neuroscience, Symposium Lecture: Retinal Microcircuits, Oct 19, 2015
61. Neural Maps, University of Strasbourg, FR, Dec 2015
62. Harvard Medical School, Department of Neurobiology, Jan 4, 2016
63. Neurex Institute for Advanced Studies, University of Strasbourg, FR, Feb 25-26, 2016
64. FMI, Basel CH, March 1, 2016
65. Society for Physiology Annual Meeting Symposium, San Diego CA, April 5, 2016

*As Associate Professor:*

66. UCLA Symposium on Microcircuits, Los Angeles, CA, May 19, 2016
67. McKnight Foundation for Neuroscience, Minneapolis MN, May 22, 2016
68. Workshop on Optic Repair, Gilbert Foundation, Detroit MI, July 26, 2016.
69. Pew Meeting on Biology of Ageing, Sausalito CA, Sept 29, 2016
70. Oregon Health Sciences University, Vollum Institute, October 27, 2016
71. NEI, National Institutes of Health, Bethesda MD, January 24, 2017
72. NYU Abu-Dhabi, Genomics and Systems, February 7, 2017
73. Max Planck Institute USA, Jupiter FL, February 13, 2017
74. Syracuse Vision Science Symposium (*Keynote lecture*), Syracuse NY, April 7, 2017
75. UCLA Integrative Center for Neural Repair, Los Angeles CA, April 21, 2017
76. ARVO Cogan Award Lecture, Baltimore MD, May 10, 2017
77. University of Pennsylvania, Philadelphia PA, September 25, 2017
80. Scripps Institute, San Diego CA, October 17, 2017



81. Case Western, Cleveland OH, Neuroscience Seminar Series, May 16, 2018
82. Gordon Research Conference on Visual Development, Il Ciocco Italy, May 20-25, 2018
83. FASEB Meeting on Retinal Processing, June 24- 29, 2018
84. Gordon Research Conference on Neural Development, Salve Regina RI, July 29- Aug 3, 2018
85. Brain-Mind Summit, Stanford University, Stanford CA, September 9, 2018
86. UC Berkeley Bay Area Vision Research Conference, Berkeley CA, September 14, 2018
87. UC Davis Neuroscience Retreat (Keynote), Bodega Marine Station, September 22, 2018
88. University of Aarhus, Denmark, Jan 11, 2019
89. University of Ohio, Neuroscience Seminar Series, February 11, 2019
90. Columbia University, Neuroscience Seminar Series, Feb 26, 2019
91. Keystone Meeting: Sensory Biology, Seattle WA, March 15-19, 2019
92. University of Texas, Austin, Neuroscience Seminar Series, April 1, 2019
93. EMBO “Regeneration and Repair”, Crete, May 7-10, 2019

## PROFESSIONAL PANELS AND WORKSHOPS

National Eye Institute “Audacious Goals for Visual Restoration” Panel Member 2014; 2015

## CLASSROOM TEACHING

### *Undergraduate level*

Neural Development in Health and Disease: Spring, 2012 (UCSD, ~50 students; 0 T.A.s)

The Healthy and Diseased Brain: Spring, 2013, 2014, 2015 (UCSD, ~100- 400 students; 2-6 T.A.s)

\*Biology 158, Developmental Neurobiology: Fall, 2016; 2018 (Stanford, ~100 students) (S. McConnell Instructor) \*guest lecture: neural regeneration

### *Graduate level*

Neuroanatomy, Winter, 2011, 2012, 2013, 2014 (UCSD, team-taught; 1 of 3 Instructors) (~35 students)

Neuroscience, 200B Fall, 2014; 2015; 2016 (UCSD, team-taught; 1 of ~10 Instructors) (~50 students)

### *Medical Students (Stanford)*

Neuroanatomy (Neuro206): Lectures on Brain Development and Brainstem, Winter, 2017, 2018, 2019

### *Advanced course instruction*

Co-Director, CSHL course on “Vision: a platform for linking cell types, circuits and perception” (2013, 2015, 2017) (~25 students, 20 Faculty, International)

## COMMITTEE SERVICE

Seminar Committee, Neurobiology Section Chair, UCSD (2011, 2012, 2013)

Neuroscience Graduate Program Admissions Committee, UCSD (2011, 2012)

Faculty Recruitment Committee, Neurobiology, UCSD (2012-2013; 2013-2014)

Research Committee Co-chair, Neurosciences, UCSD (2014-2015)

Tenure Review Committee, Neurobiology, Stanford (2016)

Assistant Professor Faculty Search Committee, Neurobiology, Stanford (2018-2019)

## HUBERMAN LAB TRAINEES & STAFF

### Current:

#### *Ph.D. students:*

Lindsey Salay (Spring 2015-present), NSF Fellow, Stanford Neuroscience Graduate Program

#### *Postdoctoral Fellows:*

Heekyung Jung (2016- present) (supported by Dean’s Fellowship)

Melis Yilmaz (2016- present) (supported by Dean's Fellowship)  
Supraja Varadajaran (2017-present)

*Project Scientists:*

Onkar S. Dhande (2011- present) (supported by Knights Templar Eye Foundation 2012/13)

*Lab Operations Manager:*

Gary Holl (2017- present)

*Assistant Clinical Research Coordinator*

Erin Mackenzie (2018)

*Undergraduate Research Assistants/Interns*

Jasmin Heu (2018- present)

Phung Le (2018- present)

Lab Alumni

*Former Ph.D. Students*

1. Jessica A. Osterhout (2011-2015) NSF Fellow, UCSD Biology Graduate Program  
Currently: Jane Coffin Childs Postdoctoral Fellow, Harvard University, C. DuLac's Lab, HHMI

2. Albert Lim (2012- 2016) UCSD Biology Graduate Program  
Currently: Postdoctoral Fellow, Genentech, So. San Francisco, Neurobiology/M. Sheng's Research Unit

*Former Postdocs*

1. Alberto Cruz-Martin (2011- 2014) currently: Assistant Professor, Tenure-Track, Boston University
2. Olivia Mullins (2012- 2013) currently: Founder and Director of Science Education Non-Profit
3. Ryan Wyatt (2012- 2013) currently: Research Group Leader, Neuro Division, Johnson & Johnson
4. Rana N. El-Danaf (2011- 2016) currently: Research Associate, NYU Abu Dhabi
5. Onkar S. Dhande (2011- 2016) currently: Research Associate, Huberman Lab
6. Bireswar Laha (2017) currently: unknown
7. Tania A. Seabrook (2013- 2018) currently: Research Scientist, Homology Biosciences, Boston MA

*Former Project Scientists*

1. Rana El-Danaf (2016- 2017) currently: Research Associate, NYU Abu Dhabi, C. Desplan Lab
2. Ben A. Stafford (2014- 2017) currently: Research Associate, Salk Institute, CA, E. Callaway Lab

*Former Undergraduate Researchers*

1. Bradley Segal (honors student 2011-2013), currently M.D., Ph.D.; Resident, Stanford Neurology
2. Pritha Multani (2012-2015), currently M.D. student, Vanderbilt Medical School
3. Victoria Cheung (2012-2015), currently Ph.D. student, Biosciences/Neuroscience, UC San Francisco
4. Malika Datta (summer, 2014), currently Ph.D. student, Neuroscience, Columbia University
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2. Victoria Wooley SRA I (2014-2015)
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