

# ALYSSA A. BREWER, M.D., PH.D.



#### MINDSPACE LABORATORY

DEPARTMENT OF COGNITIVE SCIENCES ◆ DEPARTMENT OF LANGUAGE SCIENCE CENTER FOR COGNITIVE NEUROSCIENCE ◆ CENTER FOR HEARING RESEARCH UNIVERSITY OF CALIFORNIA, IRVINE

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## PERSONAL STATEMENT

I have had a lifelong interest in disease and the brain. To foster a career spanning both these interests, I completed a dual degree M.D./Ph.D. program at Stanford University to become a physician-scientist. During my graduate training in Neurosciences at the top program in the country, I discovered and characterized three new visual areas in the human brain (e.g., Brewer et al., Nature Neuroscience 2005), made the first visual field map measurements with fMRI in macaque cortex (Brewer et al., Journal of Neuroscience 2002), and developed the proposal of visual field map clusters as a fundamental, organizing principle of human visual cortex (e.g., Brewer et al., Nature Neuroscience 2005; Wandell, Brewer, Dougherty, Phil Trans Roy Soc 2005; Wandell, Dumoulin, Brewer, Neuron 2007). I was also an instrumental member on several collaborative projects that characterized the variability of visual field maps in human posterior occipital cortex (Dougherty, Koch, Brewer, et al., Journal of Vision 2003) and investigated developmental plasticity in human rod monochromats (Baseler, Brewer et al., Nature Neuroscience 2002), cortical plasticity induced by retinal lesions in adult macaque (Smirnakis, Brewer et al., Nature 2005), and sight-recovery in adult human (Fine, Wade, Brewer, et al., Nature Neuroscience 2003). During my postdoctoral work at Stanford, I received training in diffusion tensor imaging (DTI) through a project investigating white matter changes in temporal lobe epilepsy and collaborated on a project using DTI to measure the inter-hemispheric connectivity of human primary visual cortex (Dougherty, Ben-Shachar, Bammer, Brewer, Wandell, PNAS 2005). To complement my neuroscience graduate and postdoctoral training, I simultaneously completed medical school with a concentration of clinical experiences in neurology and neurosurgery.

In my current position as an Associate Professor at the University of California, Irvine, I am pursuing several lines of research arising from this training. My lab currently focuses on visual, auditory, pain, and multisensory neuroscience, using behavioral, genetic, and high-resolution, computational neuroimaging techniques to investigate questions ranging from the fundamental organization of human visual, auditory, and somatosensory cortex, to plasticity in visual, auditory, and sensorimotor regions, to genetic and neuromodulatory effects on behavior.

Updated: October 22, 2020

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# BIOGRAPHICAL INFORMATION

EDUCATION		
9/1997 - 6/2007	Stanford University School of Medicine	M.D.
3/2000 - 9/2005	<ul> <li>Stanford University Neurosciences Graduate Program</li> <li>Dissertation: Visual field map properties and plasticity in human and macaque cortex</li> <li>Thesis Committee: Brian A. Wandell, Ph.D. (Advisor); William T. Mobley, M.D., Ph.D. (Chair); William C. Newsome, Ph.D.; Kalanit Grill-Spector, Ph.D.; Eric I. Knudsen, Ph.D.</li> </ul>	Ph.D.
6/1993 - 8/1993	University of California, Irvine  ◆ Summer Session: Intensive physics program (lectures & labs)	
9/1991 - 6/1996	Stanford University - Biological Sciences (Neurobiology focus)  ◆ Departmental Honors in the Biological Sciences  Honors Thesis: The role of the laterodorsal tegmentum in the induction and maintenance of REM sleep in freely-behaving rats. Advisors: Craig C. Heller, Ph.D.; Dennis Grahn, Ph.D.	B.S.H.
9/1991 - 6/1996	Stanford University - Comparative Literature (Literary & linguistic analysis of English, German, & Latin literatures)  ◆ Interdisciplinary Honors in the Humanities  Honors Thesis: The emergence of order and meaning from selected dynamic texts of Gertrude Stein. Advisors: Marjorie Perloff, Ph.D.; Herbert Lindenberger, Ph.D.	B.A., I.Hn.
9/1990 - 6/1991	<ul> <li>University of California, Irvine - Biology</li> <li>◆ University Program for Honors High School Scholars: Early college entrance program for advanced students during senior year of high school</li> <li>◆ Courses: 1) Astronomy; 2) Brain and Behavior</li> </ul>	

# POSITIONS AND EMPLOYMENT

2016 – present	Associate Professor by courtesy, Department of Language Science, University of California, Irvine
2015 - present	Associate Professor, Department of Cognitive Sciences, University of California, Irvine
2007 - 2015	Assistant Professor, Department of Cognitive Sciences, University of California, Irvine
2005 - 2007	Postdoctoral Research Associate, Department of Psychology, Stanford University
2002	Graduate Teaching Assistant, Department of Psychology, Stanford University
2000 - 2001	Scientific Writing Tutor, Department of Biological Sciences, Stanford University

1999 – 2005	Graduate Research Assistant / Graduate Student, Neurosciences Program and Department of Psychology, Stanford University
1999	Graduate Research Assistant, Department of Neurology, Stanford University School of Medicine & AGY Therapeutics
1998 – 2001	The Honors Biology Writing Tutor for Honors Biology Thesis Writers, Department of Biological Sciences, Stanford University
1998	Graduate Teaching Assistant, Department of Surgery, Stanford University School of Medicine
1998	Medical Scholar, Department of Vascular Surgery and Biomechanical Engineering, Stanford University School of Medicine
1997 - 2001	Course Coordinator, Department of Biological Sciences, Stanford University
1996 - 1997	Project Assistant, The Smith-Kettlewell Eye Research Institute, San Francisco, CA
1995 - 1996	Research Assistant, Department of Biological Sciences, Stanford University
1994 - 1996	Researcher, Department of Comparative Literature, Stanford University
1993 – 1994	Research Assistant, Department of Radiation Oncology, Stanford University School of Medicine
1993 - 1996	Course Assistant, Department of Biological Sciences, Stanford University

# ACADEMIC AND PROFESSIONAL HONORS

2020	Spring 2020 Outstanding Teaching Award – School of Social Sciences  During emergency distance learning with Covid-19, ranked among the top 15% of all courses taught in the School as judged by the teaching effectiveness score
2018	"IntechOpen Women in Science 2018" Book Collection Initiative  Awarded position of Academic Editor for the 'IntechOpen Women in Science' Book  Collective Initiative; 10 books chosen out of 288 international proposals. Sole editor  from USA. (London, U.K.; IntechOpen).
2015	2014 – 2015 The Dean's Award for Outstanding Undergraduate Teaching, School of Social Sciences, University of California, Irvine  The Dean's awards recognizes one outstanding undergraduate teacher for a commitment to inclusive excellence in teaching and dedication to higher education.
2014	2013-2014 Social Sciences Assistant Professor Research Award, University of California, Irvine 'Audiovisual Processing: fMRI investigations into the relationships among human visual and auditory field maps.'
2012 - 2013	National Institutes of Health Loan Repayment Program Scholar 'Visual rehabilitation after stroke.'

2012	2011-2012 Social Sciences Assistant Professor Research Award, University of California, Irvine  'Visual rehabilitation after stroke through perceptual learning paradigms: harnessing cortical plasticity for therapeutic interventions.'
2010 - 2012	National Institutes of Health Loan Repayment Program Scholar  'The dorsal visual stream: Visual field maps and functional plasticity.'
2010	2009-2010 Social Sciences Assistant Professor Research Award, University of California, Irvine  'Visual working memory in the human dorsal stream.'
2008 - 2010	National Institutes of Health Loan Repayment Program Scholar 'Neuroimaging of human visual cortex in Posterior Cortical Atrophy and Alzheimer's disease.'
2006	American Medical Association (AMA) Seed Grant Fellow 'Post-ictal and inter-ictal diffusion tensor imaging in patients with temporal lobe epilepsy.'
2002-2006	National Institutes of Health M.D./Ph.D. Pre-doctoral NRSA Fellow 'Human ventral occipito-temporal cortex.'
2002	First Place Poster: Stanford Medical Student Research Symposium, Stanford University 'Reorganization of human cortical maps caused by photoreceptor abnormalities'
1998	Biological Sciences Excellence in Teaching Award, Stanford University  Course Coordinator, Biology 44 – Undergraduate Biological Sciences Laboratory Core  Course Series, Stanford University
1998	Gerbode Scholar, Stanford University School of Medicine 'Quantitative assessment of human aortic blood flow in age-matched atherosclerotic and non-atherosclerotic subjects during moderate exercise in a 1.5T magnet.'
1996	Departmental Honors in the Biological Sciences, Stanford University  'The role of the laterodorsal tegmentum in the induction and maintenance of REM sleep in freely-behaving rats.'
1996	Interdisciplinary Honors in the Humanities, Department of Comparative Literature, Stanford University  'The emergence of order and meaning from selected dynamic texts of Gertrude Stein' - An application of chaos theory to the investigation of the development of order and the creation of meaning in prose and poetry selections by Gertrude Stein.
1996	Biological Sciences Laura Weinstein Teaching Award and Grant, Stanford University  Awarded to the top undergraduate teaching assistant (\$1,965)
1995	Biological Sciences Excellence in Teaching Award, Stanford University  Course Assistant, Biology 44 – Undergraduate Biological Sciences Laboratory Core  Course Series, Stanford University
1995	Howard Hughes Medical Institute Summer Fellow, Stanford University 'The role of the laterodorsal tegmentum in the induction and maintenance of REM sleep in freely-behaving rats.'

1991	National Merit Scholar Finalist
1991	National AP Scholar

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## **RESEARCH ACTIVITIES**

# GRANT AWARDS, FELLOWSHIPS, AND CONSULTING

(10/22/2020:	<b>\$1,265,660</b> since start of career; <b>\$1,151,513</b> since hired at UCI)	
In prep	National Science Foundation (NSF), Cognitive Neuroscience. 'Tracking Plasticity in Human Visual Cortex through Extreme Sensory	PI In prep
	Alterations'	тт ргер
In prep	National Institutes of Health (NIH); R01, National Institute of Aging (NIA) 'Visual Field Map Organization and pRF Changes in AD, MCI, and Aging'	PI In prep
7/1/2014 - 6/30/2017	National Science Foundation (NSF), Mathematical Biology Program. 'Quantifying Retinotopic Mapping by Conformal Geometry.' Award #1413417.	*Consultant \$208,000
	PI: Yalin Wang, Ph.D., Dept. of Computer Science and Engineering, Arizona State University. Co-PI: Zhong-Lin Lu, Ph.D., Dept. of Psychology, The Ohio State University.	(Fees: \$42,000 over 3 years)
	*A.A. Brewer was moved from Co-PI status to Consultant status due to completely overlapping full NSF funding on grant #1329255.	
9/1/2013- 6/30/2017	National Science Foundation (NSF), Cognitive Neuroscience. 'Acoustic Foundations of Speech Perception.' Award #1329255.	PI <b>\$475,958</b>
	Funded first submission and ranked #1 priority by NSF panel during the reduced science funding of the sequester.	·
	Co-PIs: Gregory Hickok, Ph.D.; Kourosh Saberi, Ph.D., Dept. of Cognitive Sciences, UCI.	

7/2014 - 6/2015	<b>Research and Travel Funds Award</b> , University of California, Irvine. Society for Neuroscience Nanosymposium: 'Auditory field maps beyond human primary auditory cortex.'	PI <b>\$1,100</b>
5/2015	<b>Social Sciences Faculty Desktop Computing Initiative Award</b> , University of California, Irvine.	PI <b>\$1,535</b>
6/2014 - 5/2015	2013-2014 Social Sciences Assistant Professor Research Award, University of California, Irvine. 'Audiovisual Processing: fMRI investigations into the relationships among human visual and auditory field maps.'  Award recognizes research excellence accompanied by a strong research project proposal by a Social Sciences faculty member.	PI <b>\$5,000</b>
7/2013 - 6/2014	<b>Research and Travel Funds Award</b> , University of California, Irvine. Optical Society for America Fall Vision Meeting, Houston, TX. Special Symposium: Measuring visual cortex without vision. 'Cross-sensory activation of 'clover leaf' clusters in human visual and auditory cortex.'	PI <b>\$1,100</b>
8/2012- 7/2013	<b>2011 - 2012 Social Sciences Assistant Professor Research Award</b> , University of California, Irvine. <i>'Visual rehabilitation after stroke through perceptual learning paradigms: harnessing cortical plasticity for therapeutic interventions.'</i> Award recognizes research excellence accompanied by a strong research project proposal by a Social Sciences faculty member.	PI <b>\$5,000</b>
7/2012 - 6/2013	Research and Travel Funds Award, University of California, Irvine. Society for Neuroscience Nanosymposium: Human Extrastriate Cortex: Imaging of Functional Organization. 'Functional plasticity in human occipito-temporal visual field map clusters: Adapting to reversed visual input.'	PI <b>\$1,000</b>
7/2012 - 6/2013	National Institutes of Health Loan Repayment Program Scholar 'Visual rehabilitation after stroke.' Award #L30 EY019249.  NIH salary supplement awarded to top research proposals to encourage outstanding health professionals to pursue biomedical/behavioral/social/clinical research careers.	PI <b>\$9,162.62</b>
7/2012 - 6/2013	The Academic Senate Council on Research, Computing and Libraries (CORCL) Single Investigator Innovation Grant, University of California, Irvine. 'Visuospatial Responsivity & Connectivity in the Human Cerebellum.'	PI <b>\$8,550</b>
4/2012 - 3/2013	<b>Translational Collaborative Discovery Grant Award</b> , Institute for Clinical and Translational Science, University of California, Irvine. <i>'Visual rehabilitation after stroke: harnessing cortical plasticity for therapeutic interventions.'</i>	PI <b>\$20,000</b>
	Co-PI: Steven C. Cramer, M.D., Depts. of Neurology and Anatomy & Neurobiology, UCI.	

7/2011 - 6/2012	<b>Research and Travel Funds Award</b> , University of California, Irvine. Vision Sciences Society Symposium: Human visual cortex: from receptive fields to maps to clusters to perception. 'Functional Plasticity in Human Parietal Visual Field Map Clusters: Adapting to Reversed Visual Input.'	PI <b>\$1,000</b>
7/2010 – 6/2012	National Institutes of Health Loan Repayment Program Scholar. 'The dorsal visual stream: Visual field maps and functional plasticity.' Award #L30 EY019249.	PI <b>\$35,702.07</b>
	NIH salary supplement awarded to top research proposals to encourage outstanding health professionals to pursue biomedical/behavioral/social/clinical research careers.	
12/2010 - 11/2011	Center for Hearing Research Pilot Award, University of California, Irvine. 'Mapping tonotopic and periodotopic gradients in human auditory cortex: a traveling wave fMRI study.'  Co-PIs: Gregory Hickok, Ph.D.; Kourosh Saberi, Ph.D., Dept. of Cognitive Sciences, UCI.	Co-PI <b>\$4,000</b>
5/2011	<b>Social Sciences Faculty Desktop Computing Initiative Award</b> , University of California, Irvine.	PI <b>\$1,495</b>
5/2010 - 4/2011	2009-2010 Social Sciences Assistant Professor Research Award, University of California, Irvine. <i>'Visual working memory in the human dorsal stream.'</i> Award recognizes research excellence accompanied by a strong research project proposal by a Social Sciences faculty member.	PI <b>\$1,500</b>
3/2009 – 2/2011	Office of Naval Research (ONR), Award #N000140910036. 'The Effects of Neuromodulation on Human-Robot Interaction.' Pl: Jeffrey L. Krichmar, Ph.D., Dept. of Cognitive Sciences, UCI.	Co-PI <b>\$299,319</b>
3/2010 - 12/2010	The Academic Senate Council on Research, Computing and Libraries (CORCL) Special Research Grant, University of California, Irvine. 'Functional Plasticity in Human Visual Cortex.'	PI <b>\$3,695</b>
4/2009 - 3/2010	<b>Alzheimer's Disease Research Center Pilot Grant</b> , University of California, Irvine. 'Neuroimaging of visual cortex in Alzheimer's disease and related dementias.'	PI <b>\$23,306</b>
7/2008 -	National Institutes of Health (NIH) Loan Repayment Program	PI
6/2010	Scholar. 'Neuroimaging of human visual cortex in Posterior Cortical Atrophy and Alzheimer's disease.' Award #L30 EY019249.  NIH salary supplement awarded to top research proposals to encourage outstanding health professionals to pursue biomedical/behavioral/social/clinical research careers.	\$46,584.93
2007 - 2008	National Center For Research Resources 'DTI Of Post-ictal Changes In Patients With Temporal Lobe Epilepsy' Award # P41RR0097847922	PI <b>\$5,757</b>

	Supervisor: Brian A. Wandell, Ph.D., Dept. of Psychology, Stanford University.	
2006	American Medical Association (AMA) Seed Grant, Stanford University. 'Post-ictal and inter-ictal diffusion tensor imaging in patients with temporal lobe epilepsy.'  AMA encourages medical students, physician residents, and fellows to enter the research field by supporting small research projects.  Supervisor: Brian A. Wandell, Ph.D., Dept. of Psychology, Stanford University.	PI <b>\$2,340</b>
9/2002- 6/2006	M.D. / Ph.D. Pre-Doctoral National Research Service Award (NRSA) Grant, National Institute of Neurological Disorders and Stroke (NINDS), National Institutes of Health (NIH). 'Human ventral occipito-temporal cortex.' Award #F30 NS044759. Supervisor: Brian A. Wandell, Ph.D., Neurosciences Program, Stanford University.	PI <b>\$89,086</b>
4/2000 – 8/2002	Pre-Doctoral Training Grant, Neurosciences Program, Stanford University. National Institute of Neurological Disorders and Stroke (NINDS), National Institutes of Health (NIH).  Award # T32MH020016.  PI: William T. Newsome	Trainee N/A
1998	Gerbode Scholar - Resident Medical Scholars Grant, Stanford University. 'Quantitative assessment of human aortic blood flow in agematched atherosclerotic and non-atherosclerotic subjects during moderate exercise in a 1.5T magnet.'  Supervisors: Charles Taylor, Ph.D., Dept. of Bioengineering and Surgery; E. John Harris, M.D., Dept. of Vascular Surgery, Stanford University.	PI ~ <b>\$12,000</b>
1996	<b>Biological Sciences Laura Weinstein Teaching Award and Grant</b> , Stanford University.  Awarded to the top undergraduate teaching assistant.	PI <b>\$1,965</b>
6/1995 - 9/1995	Howard Hughes Medical Institute Summer Fellowship, Stanford University. 'The role of the laterodorsal tegmentum in the induction and maintenance of REM sleep in freely-behaving rats.'  Supervisors: Craig Heller, Ph.D.; Dennis Grahn, Ph.D., Dept. of Biological Sciences, Stanford University.	PI ~ <b>\$3,000</b>

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#### **PUBLICATIONS**

- 10/22/2020: **4,130 total citations** per Google Scholar; **H-index = 18, i10-index = 22**
- Pubs UCI#17+ involve work since starting at UCI; pubs UCI#1-16 are from work before UCI. Pubs UCI#1-15 were included in my hiring evaluation.
- Legend: JA journal article; B book; BC book chapter; CP conference proceeding [UCI #] denotes corresponding label in Review Profile database.
- List of Published Work in MyBibliography: http://www.ncbi.nlm.nih.gov/sites/myncbi/alyssa.brewer.1/bibliography/49539208/public/?sort =date&direction=ascending

## PEER-REVIEWED JOURNAL ARTICLES

• 'JA - In prep' listings are associated with in-revision, completed, or nearly completed manuscripts.

JA – In prep	B. Barton, J.H. Venezia, K. Saberi, G. Hickok, <b>A.A. Brewer</b> . Ordered multimodal responses to auditory stimuli are present in early human visual cortex.
JA – In prep	B. Barton, J.H. Venezia, K. Saberi, G. Hickok, <b>A.A. Brewer</b> . Auditory field maps beyond human primary auditory cortex.
JA – In prep	B. Barton, J.H. Venezia, K. Saberi, G. Hickok, <b>A.A. Brewer</b> . Characterization of auditory field map selectivity and magnification in core and belt regions of human cortex.
JA – In prep	B. Barton, <b>A.A. Brewer</b> . Filling-in of the human rod scotoma: linking fMRI to perception.
JA – In prep	<b>A.A. Brewer</b> , B. Barton. How many maps? Cloverleaf clusters in human posterior parietal cortex. For Frontiers in Neuroinfomatics Special Issue: <i>Cortical Maps: Data and Models</i>
JA – In prep	B. Barton, <b>A.A. Brewer</b> . Cloverleaf clusters: A fundamental organizing principle of human visual cortex.
JA – In prep	<b>A.A. Brewer</b> , L. Lin, B. Barton. Functional Plasticity Induced in Adult Human Parietal Cortex by Reversed Visual Input.
<b>JA - 34</b> [UCI #39]	B. Barton, <b>A.A. Brewer</b> . (2017) Visual field map clusters in high-order visual processing: Organization of V3A/V3B and a new cloverleaf cluster in the posterior superior temporal sulcus. <i>Research Topic: Representations of visual space in primates at Frontiers in Neuroscience, Integrative Neuroscience</i> . 11:14. doi: 10.3389/fnint.2017.00004.
	<b>Invited submission</b> by eds. S.R. Lehky, M.E. Sereno, A.B. Sereno ( <i>Invited and peer-reviewed</i> )
	Research topic articles are available at: <a href="http://journal.frontiersin.org/researchtopic/4302/representations-of-visual-space-in-">http://journal.frontiersin.org/researchtopic/4302/representations-of-visual-space-in-</a>

	<u>primates</u>
	≥3 citations
	Impact Factor: 1.98
<b>JA-32</b> [UCI #37]	<b>A.A. Brewer</b> , B. Barton. (2016) Maps of the Auditory Cortex. <i>Annual Review of Neuroscience</i> . 39(1): 385-407. doi: 10.1146/annurev-neuro-070815-014045.
	<b>Invited submission</b> by the Editorial Committee of the Annual Review of Neuroscience ( <i>Invited and peer-reviewed</i> )
	≥16 citations
	Impact Factor: 19.32
<b>JA-30</b> [UCI #35]	B. Barton, <b>A.A. Brewer</b> . (2015) FMRI of the Rod Scotoma: Cortical rod pathways and implications for lesion measurements. <b>Proceedings of the National Academy of Sciences (PNAS) USA</b> . 112(16), 5201-5206. doi: 10.1073/pnas.1423673112.
	≥10 citations
	Impact Factor: 9.81
<b>JA-29</b> [UCI #34]	E. Huber*, J. Webster*, <b>A.A. Brewer</b> , D. MacLeod, B. Wandell, A. Wade, I. Fine. [*joint first authors] (2015) A lack of experience-dependent plasticity after 12 years of recovered sight. <i>Psychological Science</i> . 26(4), 393-401. doi: 10.1177/0956797614563957.
	≥14 citations
	Impact Factor: 4.54
<b>JA-27</b> [UCI #32]	B. Barton, A. Treister, M. Humphrey, G. Abedi, S.C. Cramer, <b>A.A. Brewer</b> . (2014) Paradoxical Visuomotor Adaptation to Reversed Visual Input Predicted by BDNF Val <sup>66</sup> Met Polymorphism. <i>Journal of Vision</i> . 14(19):4. doi: 10.1167/14.9.4.
	≥7 citations
	Impact Factor: 3.38
<b>JA-25</b> [UCI #30]	<b>A.A. Brewer</b> , B. Barton. (2014) Visual cortex in aging and Alzheimer's disease: Changes in visual field maps and population receptive fields. <i>Research Topic: Visual perception and visual cognition in healthy and pathological ageing.</i> <b>Frontiers in Psychology, Perception Science</b> . 5(74). doi: 10.3389/fpsyg.2014.00074.
	Paper was highlighted as one of the top 10 most viewed articles in Frontiers in Psychology in February, 2014, and was featured on the Frontiers blog. (http://www.frontiersin.org/blog/Top 10 most viewed Psychology research articles in February 2014/693)
	<b>Invited submission</b> by special editor Prof. Mark Greenlee. ( <i>invited and peer-reviewed</i> ) See supporting documents for list of contributing authors.
	Research topic articles are available at: <a href="http://journal.frontiersin.org/researchtopic/862/visual-perception-and-visual-">http://journal.frontiersin.org/researchtopic/862/visual-perception-and-visual-</a>

	cognition-in-healthy-and-pathological-ageing
	≥34 citations
	Impact Factor: 2.80
<b>JA-24</b> [UCI #29]	D.E. Asher, A.B. Craig, A. Zaldivar, <b>A.A. Brewer</b> , J.L. Krichmar. (2013) A Dynamic, Embodied Paradigm to Investigate the Role of Serotonin in Decision Making. <i>Research Topic: Neurobiological circuit function and computation of the serotonergic and related systems</i> at <i>Frontiers in Neuroscience, Integrative Neuroscience</i> . 7(78). doi: 10.3389/fnint.2013.00078.
	<b>Invited submission</b> by special editors Profs. KongFatt Wong-Lin and Kae Nakamura. (invited and peer-reviewed)
	Research topic articles are available at: <a href="http://journal.frontiersin.org/researchtopic/844/neurobiological-circuit-function-and-computation-of-the-serotonergic-and-related-systems">http://journal.frontiersin.org/researchtopic/844/neurobiological-circuit-function-and-computation-of-the-serotonergic-and-related-systems</a>
	≥8 citations
	Impact Factor: 2.00
<b>JA-23</b> [UCI #28]	B. Barton & <b>A.A. Brewer</b> . (2013) Visual working memory in human cortex. <i>Psychology</i> . <i>Special Issue on Advances in Cognitive Psychology</i> . 4(8), 655-662. doi:10.4236/psych.2013.48093.
	<b>Invited submission</b> by Editor in Chief Prof. Seth Kunen for Special Issue on Advances in Cognitive Psychology ( <i>invited and peer-reviewed</i> )
	≥2 citations
	Impact Factor: 0.98
<b>JA-22</b> [UCI #26]	A.B. Craig, D.E. Asher, N. Oros, <b>A.A. Brewer</b> , J.L. Krichmar. (2013) Social contracts and human-computer interaction with simulated adapting agents. <i>Adaptive Behavior</i> . 21(5), 371-387. doi:10.1177/1059712313491612.
	≥6 citations
	Impact Factor: 1.15
<b>JA-20</b> [UCI #25]	B. Barton, J.H. Venezia, K. Saberi, G. Hickok, <b>A.A. Brewer</b> . (2012) Orthogonal Acoustic Dimensions Define Auditory Field Maps in Human Cortex. <i>Proceedings of the National Academy of Sciences (PNAS) USA</i> . 109(50), 20738-43. doi: 10.1073/pnas.1213381109.
	≥64 citations
	Impact Factor: 9.81
<b>JA-19</b> [UCI #22]	<b>A.A. Brewer</b> , B. Barton. (2012) Effects of healthy aging on human primary visual cortex. <b>Health</b> . 4(9A), Special Issue I (Aging), pp. 695-702. doi: 10.4236/health.2012.429109.
	<b>Invited submission</b> by editor Maggie Chen for Special Issue on Aging ( <i>invited and peer-reviewed</i> )

	>11 citations
	≥11 citations
	Impact Factor: 0.42
<b>JA-17</b> [UCI #20]	D. Asher, A. Zaldivar, B. Barton, <b>A.A. Brewer</b> , J.L. Krichmar. (2012) Reciprocity and retaliation in social games with adaptive agents. <i>IEEE Transactions on Autonomous Mental Development</i> . 4(3), 226-238. doi:10.1109/TAMD.2012.2202658.
	≥15 citations
	Impact Factor: 1.35
<b>JA-16</b> [UCI #18]	<b>A.A. Brewer</b> . (2009) Visual Maps: To merge or not to merge. <i>Current Biology</i> . 19(20):R945-7. doi:10.1016/j.cub.2009.09.016.
	<b>Invited Dispatch</b> by editor Geoffrey North ( <i>invited and peer-reviewed mini-review about a paper and related 'hot topic' published in PNAS</i> )
	≥4 citations
	Impact Factor: 10.23
<b>JA-14</b> [UCI #16]	B.A. Wandell, S.O. Dumoulin*, <b>A.A. Brewer</b> *. [*Authors had equal contribution.] (2007) Visual Field Maps in Human Cortex. <i>Neuron</i> . 56(2), 366-83. doi:10.1016/j.neuron.2007.10.012.
	Invited review by Neuron (invited and peer-reviewed)
	≥761 citations
	Impact Factor: 16.49
<b>JA-13</b> [UCI #15]	B. A. Wandell, S.O. Dumoulin, <b>A. A. Brewer</b> . (2006) Computational Neuroimaging; Color Signals in the Visual Pathways. <i>Neuro-opthalmology Japan</i> . 23(3), 324-343.
	≥7 citations
	Impact Factor: 0.02
<b>JA-12</b> [UCI #14]	S.M. Smirnakis, M. Schmid, <b>A.A. Brewer</b> , A.S. Tolias, A. Shuz, M. Augath, W. Inhoffen, B.A. Wandell, N.K. Logothetis. (2005) Neuroscience: Rewiring the adult brain (Reply). <i>Nature</i> . 438(7065), E3-E4. doi:10.1038/nature04360.
	≥5 citations
	Impact Factor: 42.35
<b>JA-11</b> [UCI #13]	<b>A.A. Brewer</b> , J. Liu, A.R. Wade, B.A. Wandell. (2005) Visual field maps and stimulus selectivity in human ventral occipital cortex. <i>Nature Neuroscience</i> . 8(8), 1102-9. doi:10.1038/nn1507.
	≥358 citations
	Impact Factor: 14.98
JA-10	S.M. Smirnakis, A.A. Brewer*, M. Schmid*, A.S. Tolias, M. Augath, W. Inhoffen, A. Shuz,

Impact Factor: 42.35     JA-9	[UCI #12]	B.A. Wandell, N.K. Logothetis, [*Authors had equal contribution]. (2005) Lack of long-term cortical reorganization after macaque retinal lesions. <i>Nature</i> . 435(7040), 300-7. doi:10.1038/nature03495.  News and Views by M. I. Sereno ( <i>Nature</i> . 435, 288-289).  ≥187 citations
[UCI #11]     Functional organization of human occipital-callosal fiber tracts. Proceedings of the National Academy of Sciences (PNAS) USA. 102(20), 7350-5.		
Impact Factor: 9.81     B.A. Wandell, A.A. Brewer, R.F. Dougherty. (2005) Visual field map clusters in human cortex. Philosophical Transactions of the Royal Society, Series B. (London). Vol: 360, 693-707. (Special theme issue 'Cerebral cartography 1905-2005'.)     doi:10.1098/rstb.2005.1628.     ≥278 citations     Impact Factor: 6.23     B.A. Wandell, R.F. Dougherty, A. Brewer, M. Ben-Shachar, R. Bammer, G. Deutsch. (2004)     Measuring activity and structure in the human brain. Society for Industrial and Applied Mathematics News. Vol: 37 (7).     Impact Factor: not available     JA-6		Functional organization of human occipital-callosal fiber tracts. <b>Proceedings of the National Academy of Sciences (PNAS) USA</b> . 102(20), 7350-5.
JA-8   B.A. Wandell, A.A. Brewer, R.F. Dougherty. (2005) Visual field map clusters in human cortex. Philosophical Transactions of the Royal Society, Series B. (London). Vol: 360, 693-707. (Special theme issue 'Cerebral cartography 1905-2005'.) doi:10.1098/rstb.2005.1628.    278 citations   Impact Factor: 6.23     JA-7   B.A. Wandell, R.F. Dougherty, A. Brewer, M. Ben-Shachar, R. Bammer, G. Deutsch. (2004)   Measuring activity and structure in the human brain. Society for Industrial and Applied Mathematics News. Vol: 37 (7).   Impact Factor: not available     JA-6   R. F. Dougherty, V. M. Koch, A.A. Brewer, B. Fischer, J. Modersitzki, B. A. Wandell. (2003)   Visual field representations and locations of visual areas V1/2/3 in human visual cortex. Journal of Vision. 3(10), 586-598. doi:10.1167/3.10.1.   2490 citations   Impact Factor: 3.38     JA-5   I. Fine, A.R. Wade, A.A. Brewer, M.G. May, D.F. Goodman, G.M. Boynton, B.A. Wandell, D.I. MacLeod. (2003) Long-term deprivation affects visual perception and cortex. Nature Neuroscience. 6(9), 915-916. doi:10.1038/nn1102.   2249 citations   Impact Factor: 14.98     JA-4   A.A. Brewer, W. A. Press, N. K. Logothetis, B. A. Wandell. (2002) Visual areas in macaque cortex measured using functional magnetic resonance imaging. Journal of Neuroscience. 22(23), 10416-10426.		≥190 citations
[UCI #10] cortex. Philosophical Transactions of the Royal Society, Series B. (London). Vol. 360, 693-707. (Special theme issue 'Cerebral cartography 1905–2005'.) doi:10.1098/rstb.2005.1628.  278 citations Impact Factor: 6.23  JA-7 [UCI #9] B.A. Wandell, R.F. Dougherty, A. Brewer, M. Ben-Shachar, R. Bammer, G. Deutsch. (2004) Measuring activity and structure in the human brain. Society for Industrial and Applied Mathematics News. Vol: 37 (7). Impact Factor: not available  JA-6 [UCI #8] R. F. Dougherty, V. M. Koch, A.A. Brewer, B. Fischer, J. Modersitzki, B. A. Wandell. (2003) Visual field representations and locations of visual areas V1/2/3 in human visual cortex. Journal of Vision. 3(10), 586-598. doi:10.1167/3.10.1.  2490 citations Impact Factor: 3.38  JA-5 [UCI #7] I. Fine, A.R. Wade, A.A. Brewer, M.G. May, D.F. Goodman, G.M. Boynton, B.A. Wandell, D.I. MacLeod. (2003) Long-term deprivation affects visual perception and cortex. Nature Neuroscience. 6(9), 915-916. doi:10.1038/nn1102.  2249 citations Impact Factor: 14.98  JA-4 [UCI #6] A.A. Brewer, W. A. Press, N. K. Logothetis, B. A. Wandell. (2002) Visual areas in macaque cortex measured using functional magnetic resonance imaging. Journal of Neuroscience. 22(23), 10416-10426.		Impact Factor: 9.81
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JA-7 [UCI #9]  B.A. Wandell, R.F. Dougherty, A. Brewer, M. Ben-Shachar, R. Bammer, G. Deutsch. (2004)  Measuring activity and structure in the human brain. Society for Industrial and Applied Mathematics News. Vol: 37 (7).  Impact Factor: not available  R. F. Dougherty, V. M. Koch, A.A. Brewer, B. Fischer, J. Modersitzki, B. A. Wandell. (2003)  Visual field representations and locations of visual areas V1/2/3 in human visual cortex. Journal of Vision. 3(10), 586-598. doi:10.1167/3.10.1.  ≥490 citations  Impact Factor: 3.38  JA-5 [UCI #7]  I. Fine, A.R. Wade, A.A. Brewer, M.G. May, D.F. Goodman, G.M. Boynton, B.A. Wandell, D.I. MacLeod. (2003) Long-term deprivation affects visual perception and cortex. Nature Neuroscience. 6(9), 915-916. doi:10.1038/nn1102.  ≥249 citations  Impact Factor: 14.98  JA-4 [UCI #6]  A.A. Brewer, W. A. Press, N. K. Logothetis, B. A. Wandell. (2002) Visual areas in macaque cortex measured using functional magnetic resonance imaging. Journal of Neuroscience. 22(23), 10416-10426.		≥278 citations
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JA-4 [UCI #6]  A.A. Brewer, W. A. Press, N. K. Logothetis, B. A. Wandell. (2002) Visual areas in macaque cortex measured using functional magnetic resonance imaging. <i>Journal of Neuroscience</i> . 22(23), 10416-10426.		≥249 citations
[UCI #6] cortex measured using functional magnetic resonance imaging. <i>Journal of Neuroscience</i> . 22(23), 10416-10426.		Impact Factor: 14.98
>172 citations		cortex measured using functional magnetic resonance imaging. <i>Journal of Neuroscience</i> .
£1/2 Citations		≥172 citations

	Impact Factor: 6.91
JA-3 [UCI #5]	A.R. Wade, <b>A.A. Brewer</b> , B.A. Wandell. (2002) Functional Measurements of Human Ventral Occipital Cortex: Retinotopy and Color. <i>Philosophical Transactions of the Royal Society, Series B. (London)</i> . Vol: 357, No.1424, 963- 973. doi: 10.1098/rstb.2002.1108. ≥253 citations  Impact Factor: 6.23
<b>JA-2</b> [UCI #4]	H.A. Baseler, <b>A.A. Brewer</b> , L.T. Sharpe, A.B. Morland, H. Jägle, B.A. Wandell. (2002) Reorganization of human cortical maps caused by inherited photoreceptor abnormalities. <i>Nature Neuroscience</i> . 5(4), 364-70. doi:10.1038/nn817.  ≥132 citations Impact Factor: 14.98
<b>JA-1</b> [UCI #3]	W.A. Press, <b>A.A. Brewer</b> , R.F. Dougherty, A.R. Wade, B.A. Wandell. (2001) Visual areas and spatial summation in human visual cortex. <i>Vision Research</i> . 41(10-11), 1321-32. doi: 10.1016/S0042-6989(01)00074-8  ≥197 citations Impact Factor: 2.55

## PEER-REVIEWED BOOKS

B – In prep	<b>A.A. Brewer</b> , B. Barton. (under contract) Cortical Plasticty in the Human Visual System. Springer.
B – In progress	<b>A.A. Brewer</b> (Editor). (accepted, 4/2018). Cortical plasticity: Computational neuroimaging investigations of human visual cortex. (London, U.K.: IntechOpen).
	Awarded position of Academic Editor for the 'IntechOpen Women in Science' Book Collective Initiative; 10 books chosen out of 288 international proposals. Sole editor from USA.

## PEER-REVIEWED BOOK CHAPTERS

• 'BC - In prep' listings are associated with chapters in progress & for which proposals have been accepted.

BC - 36 [UCI #41]	B. Barton, <b>A.A. Brewer</b> . (2019). Attention and working memory in human auditory cortex. In <i>The Human Auditory System</i> - <i>Basic Features and Updates on Audiological Diagnosis and Therapy</i> , Eds. Stavros Hatzopoulos, Andrea Ciorba and Piotr H. Skarzynski. ISBN 978-1-78923-938-6. (London, U.K.: IntechOpen) doi: 10.5772/intechopen.85537.  Invited submission by IntechOpen Publishers. ( <i>invited and peer-reviewed</i> )
BC-35 [UCI #40]	<b>A.A. Brewer</b> , B. Barton. (2018). Cloverleaf clusters: A common macrostructural organization across human visual and auditory cortex. In <i>Sensory Nervous System</i> , Ed. Thomas Heinbockel. ISBN: 978-953-51-5595-9. (London, U.K.: IntechOpen) Ch. 6, pp. 127-160. doi: 10.5772/intechopen.77964.
	Book available from: <a href="https://www.intechopen.com/books/sensory-nervous-system">https://www.intechopen.com/books/sensory-nervous-system</a>
	<b>Invited submission</b> by IntechOpen Publishers. (invited and peer-reviewed)
BC-33 [UCI #38]	<b>A.A. Brewer</b> , B. Barton. (2016). Changes in visual cortex in healthy aging and dementia. In <i>Update on Dementia</i> , Ed. Davide Moretti. Print ISBN: 978-953-51-2654-6. (Rijeka, Croatia: InTech). Ch. 12, pp. 273-310. doi: 10.5772/64562.
	Book available from: <a href="https://www.intechopen.com/books/update-on-dementia">https://www.intechopen.com/books/update-on-dementia</a>
	Invited submission by InTech Publishers. (invited and peer-reviewed)
BC-28 [UCI #27]	B. Barton, <b>A.A. Brewer</b> . (2015) Human Auditory Cortex. In <i>Neurobiology of Language</i> , Eds. G. Hickok, S. L. Small. ISBN 978-0-12-407794-2. (Cambridge: Academic Press, Elsevier) Ch. 5, pp. 49-58. doi: 10.1016/B978-0-12-407794-2.00005-5.
	Book available from: http://www.sciencedirect.com/science/book/9780124077942
	<b>Invited submission</b> by editors: Profs. G. Hickok and S. Small. ( <i>invited and peer-reviewed</i> )
BC-21 [UCI #23]	<b>A.A. Brewer</b> , B. Barton. (2014) Developmental Plasticity: FMRI Investigations into Human Visual Cortex. In <i>Advanced Brain Neuroimaging Topics in Health and Disease - Methods and Applications</i> , Eds. T. Dorina Papageorgiou, George Christopoulos, Stelios Smirnakis. ISBN: 978-953-51-1203-7. (Rijeka, Croatia: InTech) Ch. 12, pp. 305-334. doi: 10.5772/58277.
	Book available from: <a href="http://www.intechopen.com/books/advanced-brain-neuroimaging-topics-in-health-and-disease-methods-and-applications">http://www.intechopen.com/books/advanced-brain-neuroimaging-topics-in-health-and-disease-methods-and-applications</a>
	Chapter was ranked as the most downloaded chapter in the book in 2014.
	<b>Invited submission</b> by editors: Drs. T. Dorina Papageorgiou, George Christopoulos, Stelios Smirnakis. ( <i>invited and peer-reviewed</i> )
	≥3 citations
BC-18	<b>A.A. Brewer</b> , B. Barton. (2012) Visual field map organization in human visual cortex. In

[UCI #21]	Visual Cortex- Current Status and Perspectives, Eds. Stephane Molotchnikoff, Jean Rouat. ISBN: 978-953-51-0760-6. (Rijeka, Croatia: InTech) Ch. 2, pp. 30-60. doi: 10.5772/51914.  Book available from: http://www.intechopen.com/books/visual-cortex-current-status-and-perspectives  Chapter was highlighted online for passing 1,000 downloads in 7/2013 and has been ranked as the most downloaded chapter of the book (2012-2016).  Invited submission by InTech Publishers. (invited and peer-reviewed)  ≥24 citations
BC-15 [UCI #17]	B.A. Wandell, S.O. Dumoulin, <b>A.A. Brewer</b> . (2009) Visual cortex in humans. In <i>Encyclopedia of Neuroscience</i> , Ed. L.R. Squire. (Oxford: Academic Press) Vol. 10, pp. 251-257.  Invited submission by editor: Prof. L. Squire. ( <i>invited and peer-reviewed</i> )  ≥25 citations

## PEER-REVIEWED CONFERENCE PROCEEDINGS

CP-31 [UCI #36]	D. Ta, B. Barton, <b>A.A. Brewer</b> , Z.L. Lu, Y Wang. (2015) Characterizing Human Retinotopic Mapping Using Conformal Geometry: Conformal Distortion Analysis. <i>International Conference on Medical Imaging Computing and Computer Assisted Interventions (HPC – MICCAI)</i> . Munich, Germany.  Impact Factor: 3.65
CP-26 [UCI #31]	D. Ta, J. Shi, B. Barton, <b>A.A. Brewer</b> , Z.L. Lu, Y. Wang. (2014) Characterizing Human Retinotopic Mapping with Conformal Geometry: A Preliminary Study. <i>Proc. SPIE</i> . 9034, Medical Imaging: Image Processing, 90342A. San Diego, CA. doi: 10.1117/12.2043570. Impact Factor: 0.24

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#### **BROADCAST MEDIA**

2) 'Messing with Reality?' - Episode 1 of <u>The Brain with David Eagleman - Exploration</u>
[UCI #33] Into the Inner Cosmos. (Filmed 8/23/2014; Aired 10/15/2015). Publisher: Public
Broadcasting Service (PBS), produced by Blink Films. Featured scientists in Part 1: Alyssa
A. Brewer, M.D., Ph.D., Brian Barton, Ph.D., and David Eagleman, Ph.D.

I was invited to contribute as a guest scientist to a landmark, 6 part series on the human brain filmed for PBS by Blink Films, a leading British television production company specializing in

scientific, cultural and historical documentaries for international broadcast. My short-term [UCI #32] and long-term [in prep/submitted] prism visual-motor adaptation studies will be featured in the first hour-long segment entitled, 'Messing with Reality,' which discusses human perception. Filming of my visual adaptation work and of my discussions of human perception with series creator Dr. David Eagleman took place August 23, 2014, on UCI campus. The series premiered in October, 2015, as part of the PBS "Think Wednesday" lineup.

Episode clip available from: <a href="https://www.youtube.com/watch?v=7x1GM5sNpwk">https://www.youtube.com/watch?v=7x1GM5sNpwk</a>

Full PBS series available from: <a href="http://www.pbs.org/the-brain-with-david-eagleman/home/">http://www.pbs.org/the-brain-with-david-eagleman/home/</a>

Topographic Visual Maps with Dr. Alyssa Brewer.' (2013) Brain Matters Podcast,

[UCI #24] Episode 4; The University of Texas at Austin: <a href="http://brainpodcast.com">http://brainpodcast.com</a>; Freely available on iTunes: <a href="https://itunes.apple.com/us/podcast/topographic-visual-maps-dr./id730239508?i=196985728&mt=2">https://itunes.apple.com/us/podcast/topographic-visual-maps-dr./id730239508?i=196985728&mt=2</a>

## DISSERTATION (PUBLISHED)

A.A. Brewer. (2005) Visual field map properties and plasticity in human and macaque cortex. *Doctoral Dissertation, Stanford University, 215 pp.* (Ann Arbor: ProQuest/UMI) Proquest document ID: 305437985; Dissertation/thesis number: 3187264. (Dissertation Abstracts International DAI-B 66/08, p. 4098, Feb 2006), ISBN-13: 9780542294709, ISBN-10: 0542294702.

Available from: http://search.proguest.com/docview/305437985?accountid=14509

#### TECHNICAL REPORTS

- 8) **A.A. Brewer**, D. Chen, A. Sherbondy, R.F. Dougherty, R. Fisher, B.A. Wandell. (2006) Diffusion Tensor Imaging of Post-ictal Changes in Patients with Temporal Lobe Epilepsy. *The Lucas Report.* Vol. 5, pg. 82.
- 7) **A.A. Brewer**, J. Liu, A.R. Wade, B.A. Wandell. (2005) New Subdivisions of the Human VO Cluster Derived from Visual Field Mapping and Stimulus Selectivity. *The Lucas Report.* Vol. 4, pg. 72.
- 6) **A.A. Brewer**, J. Liu, A.R. Wade, B.A. Wandell. (2004) Human Ventral Occipitotemporal Cortex Contains Several Visual Field Maps With Differential Stimulus Selectivity. *The Lucas Report.* Vol. 3, pg. 84.
- 5) I. Fine, A.R. Wade, **A.A. Brewer**, M.G. May, D.F. Goodman, G.M. Boynton, D.I.A. MacLeod, B.A. Wandell. (2003) The Effects of Long-Term Deprivation on Visual Perception and Visual Cortex. *The Lucas Report.* Vol. 2, pg. 57.

- 4) A.R. Wade, **A.A. Brewer**, B.A. Wandell. (2002) Functional Organization of the Ventral Surface of the Human Visual Cortex. *The Lucas Report.* Vol. 1, pg. 43.
- R.F. Dougherty, **A.A. Brewer**, A.R. Wade, B.A. Wandell. (2002) Measurement of Human Visual Areas Across Individuals. *The Lucas Report.* Vol. 1, pg. 42.
- 2) A. Brewer, P. Fisher. (1999) Review of conventional and alternative treatments for glioblastoma multiforme. Donated to *AGY Therapeutics* and the *National Brain Tumor Foundation*.
- 1) A. Brewer. (1996) The role of the laterodorsal tegmentum in the induction and maintenance of REM sleep in freely-behaving rats. *The Stanford Biologist: A Journal of Undergraduate Research.* Vol. 1.

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## CONFERENCE ABSTRACTS († PUBLISHED; \* INVITED SPEAKER)

- \* A.A. Brewer. (2018) Quantitative Neuroimaging approaches to measure pain representations in human cortex and subcortex. Houston, TX: *Translational Pain Research Conference of the Gulf Coast Consortium*. Invited Keynote Keck Speaker \*.
- † B. Barton, **A.A. Brewer**. (2017) Visual field map clusters in high-order visual processing: Organization of V3A/V3B and a new cloverleaf cluster in the posterior superior temporal sulcus. Society for Neuroscience Abstracts. Program No. 403.21. Neuroscience 2017 Abstracts. Washington, D.C.: *Society for Neuroscience*. Online.
- † A.A. Brewer, B. Barton. (2017) Visual field map clusters in higher-order visual processing: Organization of visual field maps within the human lateral occipital cortex. Society for Neuroscience Abstracts. Program No. 403.20. Neuroscience 2017 Abstracts. Washington, D.C.: Society for Neuroscience. Online.
- † B. Barton, **A.A. Brewer**. (2016) Visual field map clusters in high-order visual processing: An analysis of a new cluster in the posterior superior temporal sulcus. Society for Neuroscience Abstracts. Program No. 771.08. Neuroscience 2016 Abstracts. San Diego, CA: **Society for Neuroscience**. Online.
- \* A.A. Brewer, B. Barton. (2016) Cortical plasticity of human visual function. Symposium on "Bridging the gap in ophthalmology: From physics to visual cognition", 114th Congress of the German Ophthalmology Society (DOG), Berlin, Germany. Invited speaker \*.
- B. Barton, **A.A. Brewer**. (2016) fMRI of the rod scotoma: cortical rod pathways and implications for lesion measurements. Symposium on "Bridging the gap in ophthalmology: From physics to visual cognition", **114**<sup>th</sup> **Congress of the German Ophthalmology Society (DOG)**, **Berlin, Germany**.
- † B. Barton, J.H. Venezia, K. Saberi, G. Hickok, **A.A. Brewer**. (2015) Visual activation of auditory field maps across Heschl's Gyrus and surrounding cortex. Society for Neuroscience Abstracts. Program No. 597.14. Neuroscience 2015 Abstracts. Chicago, IL: *Society for Neuroscience*. Online.

† B. Barton, J.H. Venezia, K. Saberi, G. Hickok, **A.A. Brewer**. (2014) Auditory field maps beyond human primary auditory cortex. Society for Neuroscience Abstracts. Program No. 328.11. Neuroscience 2014 Abstracts. Washington, D.C.: **Society for Neuroscience**. Online.

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## IN THE MEDIA - MEDIA COVERAGE OF RESEARCH, PUBLISHED WORK & INTERVIEWS

- 2017 *The Brain: The Story of You*. Eagleman, David. (New York, NY: Vintage) [Based on the PBS documentary, 'The Brain with David Eagleman', with **featured scientist A.A. Brewer**] ISBN-13: 978-0525433446.
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- 2002 'Zurück aus der Dunkelheit.' der Spiegel Television. November. http://www.spiegel.de/sptv/a-225094.html
- 'Sight Unseen.' Abrams, Michael; Aliano, Alyson. Discover Magazine, 23(6). June 1. <a href="http://discovermagazine.com/2002/jun/featsight">http://discovermagazine.com/2002/jun/featsight</a>
- 2002 'Outlook.' BBC World Service Radio.
- 'The man who learnt to see.' BBC Documentary. [Winner of the Royal Television Society's award for "best single programme" in 2002]. <a href="http://eden.uktv.co.uk/blog/article/man-who-learnt-see/">http://eden.uktv.co.uk/blog/article/man-who-learnt-see/</a>

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# PROFESSIONAL ACTIVITIES

## SERVICE: PROFESSIONAL

	PROFESSIONAL MEMBERSHIPS
2001 – present	Member, Society for Neuroscience
2012 - 2014	Member, Cognitive Neurosciences Society
2010 - 2013	Elected Chair, Vision Division, Fall Vision Meeting, Optical Society of America
2010 - 2011	Member, International Society to Advance Alzheimer Research and Treatment
2010 - 2013	National Science Foundation Peer Review Committee, ad hoc reviewer
2009 - 2010	Elected Vice-Chair, Vision Division, Fall Vision Meeting, Optical Society of Americ
2009 - 2014	Member, Optical Society of America
2002 - 2014	Member, Vision Sciences Society
1997 - 2002	Member, American Medical Student Association
	CONFERENCES / SYMPOSIA
October, 2013	<b>Co-Chair</b> : Extrastriate Cortex: Computational Neuroimaging, Annual Conference, Society for Neuroscience.
October, 2013	<b>Moderator</b> : Measuring Cortex without Vision. Fall Vision Meeting, Optical Society of America. Houston, Texas.
October, 2012	<b>Co-Chair</b> : Human Extrastriate Cortex: Imaging of Functional Organization. Nanosympoism, Annual Conference, Society for Neuroscience.
July, 2012	<b>Co-Organizer</b> : Auditory Neuroscience Workshop: Towards a "Closed-Loop" Neuro-Computational Model of Speech Processing, University of California, Irvine Workshop Proposal Funding Award: School of Social Science, UCI.

September, 2011	<i>Moderator</i> : Connectivity Maps in the Brain. Fall Vision Meeting, Optical Society of America. Seattle, Washington.
October, 2010	<i>Moderator</i> : Contributed Vision Session. Fall Vision Meeting, Optical Society of America. Rochester, New York.
2010 - 2013	<i>Elected Chair</i> , Vision Division, Fall Vision Meeting, Optical Society of America.
2009-2010	Elected Vice-Chair, Vision Division, Fall Vision Meeting, Optical Society of America.

		INVITED TALKS (INTERNATIONAL LOCATIONS IN BOLD)
28)	October, 2020	Cognitive Science Association Colloquium, University of California, Irvine Computational Neuroimaging of Cortical Fields Maps in Sensory Systems
27)	May, 2019	Nu Rho Psi Colloquium, University of California, Irvine Computational Neuroimaging of Cortical Fields Maps in Human Visual and Auditory Cortex
26)	April, 2018	<b>Keynote Keck Speaker</b> ; Translational Pain Research Conference of the Gulf Coast Consortium. Houston, TX (Conference abstract <b>#84</b> ) <i>Quantitative Neuroimaging approaches to measure pain representations in human cortex and subcortex</i>
25)	April, 2018	Menninger Psychiatry & Behavioral Sciences Seminar Series, Baylor College of Medicine, Houston, TX  Computational neuroimaging of cortical fields maps in human visual and auditory cortex
24)	November, 2017	The School of Social Science Expert Speaker Series, University of California, Irvine "Lifting the Hood" on Your Brain and Mind
23)	October, 2016	Spinoza Centre for Neuroimaging & Utrecht University, <b>Amsterdam</b> , <b>Netherlands</b> (NextGenVis consortium)  Cortical plasticity of human visual function: Adapting to Reversed Visual Input
22)	October, 2016	Perceptual and Cognitive Neuroscience (PCN), University Medical Center of Groningen, <b>Groningen</b> , <b>Netherlands</b> (NextGenVis consortium)  Cortical Visual Plasticity in Human: Adapting to Reversed Visual Input
21)	September, 2016	Symposium on "Bridging the gap in ophthalmology: From physics to visual cognition", German Ophthalmology Society (DOG), <b>Berlin, Germany</b> (Conference abstract #80)  Cortical plasticity of human visual function
20)	September, 2016	Section for Clinical and Experimental Sensory Physiology, Magdeburg University, <b>Magdeburg, Germany</b> (NextGenVis consortium)  Auditory field map organization in human cortex

18)	December, 2015	Seminar Series in Neuroscience, Department of Neurobiology and Anatomy, The University of Texas Health Science Center at Houston, Houston, TX Behavioral and Cortical Visual Plasticity in Human: Adapting to Reversed Visual Input
17)	October, 2013	Neuroscience Seminar Series, Department of Neuroscience, The University of Texas at Austin, Houston, TX 'Clover Leaf' Clusters and Functional Plasticity In Human Visual Cortex
16)	July, 2012	Auditory Neuroscience Workshop: Towards a "Closed-Loop" Neuro- Computational Model of Speech Processing, University of California, Irvine Human Cortical Auditory Field Maps
15)	February, 2012	Zhenjiang University of Technology Program, Extension Program, University of California, Irvine  Visual Perception
14)	January, 2012	Neuroscience Seminar Series, Baylor College of Medicine, Houston, TX 'Clover Leaf' Clusters and Functional Plasticity In Human Visual Cortex
13)	August, 2011	Visiting Tibetan Scholar Seminar Series, University of California, Irvine Brain Disorders
12)	August, 2011	INSIDE UCI: Freshman - Transfer Summer Start Series, University of California, Irvine  Visual Neuroscience
11)	June, 2011	Joint Symposium on Neural Computation. San Diego, CA (Conference abstract <b>#52</b> )  Functional Plasticity in Human Parietal Cortex: Adapting to Reversed Visual Input
10)	April, 2011	Brain Mapping Symposium, University of California, Irvine 'Clover Leaf' Clusters in Human Visual Cortex
9)	March, 2011	Neurowissenschaftliche Gesellschaft: Ninth Goettingen Meeting of the German Neuroscience Society, 33 <sup>rd</sup> Goettingen Neurobiology Conference. <b>Goettingen, Germany</b> . (Conference abstract # <b>51</b> )  Functional plasticity in adult human cortex in response to an extreme alteration of visual input
8)	February, 2010	The School of Social Science Expert Speaker Series, Inaugural Speaker, University of California, Irvine Inducing plasticity in normal adult human cortex
7)	September, 2009	Fall Vision Meeting, Optical Society of America (Conference abstract #29)  A Novel Use for Visual Field Maps: Tracking Functional Plasticity in  Posterior Parietal Cortex
6)	October, 2009	The School of Social Sciences Chancellor's Club, University of California, Irvine Inducing plasticity in normal adult human cortex
5)	February, 2008	San Francisco Museum of Modern Art ( <b>SF MOMA</b> ), San Francisco, California <i>Take your time: Olafur Eliasson. Visual Illusions</i>

4)	January, 2008	Center for Cognitive Neuroscience, University of California, Irvine Visual Field Maps: from Properties to Plasticity in Human & Macaque Cortex
3)	January, 2006	Department of Cognitive Sciences, University of California, Irvine Visual field map properties and plasticity
2)	May, 2005	Workshop on "New Concepts of Cortical Retinotopy", Vision Sciences Society (Conference abstract #19)  Evaluation of visual field map organization in ventral occipital cortex
1)	December, 2005	Smith-Kettlewell Eye Research Institute, San Francisco, California New subdivisions of the human VO cluster

#### **REVIEW ACTIVITY**

#### **JOURNALS**

- ♦ 2015-present: Frontiers Journal Frontiers in Human Neuroscience **Editorial Board, Review Editor**
- ♦ 2012-present: Frontiers Journal Frontiers in Neuroscience, Perception Science **Editorial Board, Review Editor**
- ♦ 2012-present: Frontiers Journal Frontiers in Psychology, Perception Science **Editorial Board, Review Editor**
- ◆ Ad hoc reviewer: Alzheimer's Disease & Dementia, Cerebral Cortex, Current Biology, eLife, Frontiers in Human Neuroscience, Frontiers in Neuroscience Perception Science, Frontiers in Psychology Perception Science, Hearing Research, Human Brain Mapping, Journal of Cognition, Journal of Neurophysiology, Journal of Neuroscience, Journal of Vision, Journal of Visualized Experiments, NeuroImage, Neuron, Neuropsychologia, Neuroscience Research, Neuroscience, Peer J, Public Library of Science (PLoS) ONE, Proceedings of the National Academy of Sciences (PNAS)

#### GRANTS: MEMBER OF REVIEW BOARDS

2008 - present	Annual Grant Reviewer, Alzheimer's Association, USA
11/2020	<b>Grant Reviewer Panelist,</b> Study Section – Sensory and Motor Neuroscience, Cognition and Perception Fellowship [ZRG1 F02B-E], National Institutes of Health (NIH) *Diversity activity: Training Programs
05/2020	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 4']
04/2019	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 5']

08/2017	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) <i>[Panel name confidential – 'Panel 1']</i>
04/2017	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 4']
04/2017	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 3'] * <b>Diversity activity: Training Programs</b>
10/2016	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 1']
04/2016	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 3'] * <b>Diversity activity: Training Programs</b>
10/2015	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 1']
06/2015	<b>Grant Reviewer Panelist</b> ( <i>ad hoc panelist</i> ), Study Section – Mechanisms of Sensory, Perceptual and Cognitive Processes (SPC); <b>Early Career Reviewer Program</b> , National Institutes of Health ( <b>NIH</b> )
05/2015	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 1']
04/2015	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 2'] * <b>Diversity activity: EPSCoR States</b>
10/2014	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 1']
10/2014	<b>Grant Reviewer Panelist</b> ( <i>ad hoc panelist</i> ), Study Section – Mechanisms of Sensory, Perceptual and Cognitive Processes (SPC); <b>Early Career Reviewer Program</b> , National Institutes of Health ( <b>NIH</b> )
05/2014	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 1']
10/2013	<b>Grant Reviewer Panelist</b> , National Science Foundation ( <b>NSF</b> ) [Panel name confidential – 'Panel 1']

## GRANTS: AD HOC REFEREE

2013 - present	Ad hoc Grant Reviewer, Medical Research Council (MRC), United Kingdom
2011 – present	<b>Ad hoc</b> Outside Grant Reviewer, <b>National Institute of Health (NIH)</b> , for grants supported by the Institute for Clinical and Translational Science (ICTS) at the University of California, Irvine
2010 - present	Ad hoc Outside Grant Reviewer, National Science Foundation (NSF) [multi-panel]
08/2017	Ad hoc Grant Reviewer, Wellcome Trust, United Kingdom
08/2017	Ad hoc Grant Reviewer, German Research Foundation (Deutsche Forschungsgemeinschaft), Germany

08/2017	Ad hoc Grant Reviewer, Austrian Science Fund (FWF), programme for funding patient oriented clinical research (KLIF), Austria
01/2017	Ad hoc Grant Reviewer, UitZicht, Netherlands
09/2016	Ad hoc Grant Reviewer, German Research Foundation (Deutsche Forschungsgemeinschaft), Germany
05/2015	<b>Ad hoc</b> Grant Reviewer, Deutscher Akademischer Austauschdienst (DAAD; German Academic Exchange Service) for the P.R.I.M.E. (Postdoctoral Researchers International Mobility Experience programme, <b>Germany</b>

## CONFERENCES

9/2018 - 8/2021

2009 – 2103 Annual Reviewer, Optical Society of America, Fall Vision Meeting

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# SERVICE: CAMPUS, SCHOOL, AND DEPARTMENT

## CAMPUS

ACADEMIC SENATE COMMITTEES, SUBCOMMITTEES, & TASK FORCES		
2020 – 2021 <i>Upcoming</i>	Member, Campus Budget Subcommittee: Review of Functional Areas	
2020 – 2021 <i>Upcoming</i>	Member, CPB Representative, Small Capital Improvement Advisory Committee	
9/2019 - 8/2021	Vice-Chair, Council on Planning and Budget (CPB), University of California, Irvine	
2019 - 2020	Member, CPB Vice Chair, Senate Cabinet	
2019 - 2020	Member, CPB Representative, Small Capital Improvement Advisory Committee	
2019 - 2020	Member, CPB Representative, Task Force on Student Supplemental Costs	

Member, Council on Planning and Budget (CPB), University of California, Irvine

10/2013 - present	<b>Full member</b> , Social and Behavioral Institutional Review Board ( <b>IRB</b> ) Committee "C", University of California, Irvine
1/2015 - 12/2018	<b>Vice Chair</b> , Social and Behavioral Institutional Review Board ( <b>IRB</b> ) <b>Committee "C"</b> , University of California, Irvine
1/2015 - 12/2018	<b>Full member</b> , Social and Behavioral Institutional Review Board ( <b>IRB</b> ) <b>Committee "E"</b> , University of California, Irvine
7/2014 - 12/2014	Interim Vice Chair, Social and Behavioral Institutional Review Board (IRB) Committee "C", University of California, Irvine
6/2011	Institutional Review Board: Association for Accreditation of Human Research Protection Program (AAHRPP) Site Visit, Faculty Participant. University of California, Irvine

## GRANTS

1/2011 - present	Internal and Extramural Grant Review Committee, Institute for Clinical and Translational Science (ICTS) at the University of California, Irvine
11/2018 - 1/2019	Internal Grant Review Committee, UCI Research Seed Funding (Track 1), University of California, Irvine
12/2015 - 1/2016	Internal Grant Review Committee, UCI Research Seed Funding (Track 1), University of California, Irvine
4/2009	Internal Grant Review Committee, Alzheimer's Disease Research Center – MIND Institute at the University of California, Irvine

## OTHER

2013 - present	Member, Center for Hearing Research, University of California, Irvine
2013 – present	Member, Center for Cognitive Neuroscience and Engineering (CENCE), University of California, Irvine
12/2015 - 2018	Point of Contact, Conflict of Interest Oversight Committee, University of California, Irvine
8/2011	Building Your Career: A Discussion Panel, Transfer Student Summer Start Program, University of California, Irvine; <b>Invited Talk</b> : <i>Career Planning</i>
2008 - 2013	<b>Executive Committee Member</b> , Center for Cognitive Neuroscience (CCNS – now CENCE, above), University of California, Irvine
2/2008	Mesa Court Myth Busters, University of California, Irvine Invited Talk: Visual Neuroscience

SCHOOL		
9/2018 - present	Member, Committee on Faculty Diversity, Inclusion and Development, School of Social Sciences, University of California, Irvine	
2/2018 - 6/2018	Linguistics Representative, Fundraising Advisory Committee, School of Social Sciences, University of California, Irvine	
2/2017	Panelist, Dean's Leadership Society, University of California, Irvine	
5/2011	Panelist, Social Sciences Responsible Conduct of Research Seminar, University of California, Irvine	
6/2008	Member, Center for Cognitive Neuroscience Summer Fellowship Committee, University of California, Irvine	
2007-2012	Member, Cognitive Neuroscience Concentration Committee, University of California, Irvine	

	DEPARTMENT	
9/2017 - 2/2018	Member, Personnel Review Committee, Department of Language Science, University of California, Irvine	
9/2015 - 5/2016	Member, Faculty Search Committee, Falmagne Chair(s), Department of Cognitive Sciences, University of California, Irvine	
9/2015 - 2/2016	Member, Personnel Review Committee, Department of Cognitive Sciences, University of California, Irvine	
9/2012 - 2/2013	Member, Personnel Review Committee, Department of Cognitive Sciences, University of California, Irvine	
5/2012 - 2/2013	Member, Faculty Search Committee, Cognitive Sciences, University of California, Irvine	
10/2010	Member, Personnel Review Committee, Department of Cognitive Sciences, University of California, Irvine	
5/2008	Member, John I. Yellott Scholar Award Committee (Graduate student award), University of California, Irvine	
	STANFORD UNIVERSITY SCHOOL OF MEDICINE	
2001-2002	Fifth Year Class Representative, Stanford Medical Student Association (SMSA), Stanford University School of Medicine	
2000-2001 Class Secretary, Stanford Medical Student Association (SMSA), Stanford Universi School of Medicine		

1997-1998 Admit Weekend Co-coordinator, Stanford University School of Medicine

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## SERVICE: COMMUNITY OUTREACH PROGRAMS

	'BRAIN DAY' ELEMENTARY SCHOOL PROGRAMS	
In development 'Colorful Cortex Workshops' The Brewer Lab is currently developing not neuroscience workshops for K-8 students in Orange County, CA. Undergr graduate students will be trained for and deliver age-appropriate present local communities, with a focus on under-served local communities.		
2010 - 2013	'Brain Science Assembly,' Alyssa A. Brewer, Gregory Hickok, Jeffrey L. Krichmar	
	Assemblies at <b>Bonita Canyon, University Park, Stone Gate, and Turtle Rock Elementary Schools</b> to introduce local elementary fifth grade students to the topics and career of cognitive neuroscience.	
11/2011	'Brain Day' at Steve Luther Del Amo Elementary School; Cerritos, CA	
	Brewer Lab provided training in basic neuroscience in age-appropriate formats for several grades (K-2, 2-4, 4-6) by (1) introducing students to the organization of the brain; (2) discussing the brain's importance and function; and (3) reviewing brain disease and damage.	
	GIRLS INC.	
3/2012	'The Brilliant Brain': Workshop for the Eureka! Girls Inc. of Orange County. Tustin, CA.  Special presentation on the organization, functions, and diseases of the brain by the Brewer Laboratory of Visual Neuroscience for the 6th and 7th grade girls and families.	
7/2012	<b>Summer Workshop:</b> Week-long session for <b>Girls Inc. Summer Camp</b> by the Brewer Laboratory of Visual Neuroscience on the organization, functions, and diseases of the brain. Costa Mesa, CA	

Girls Inc. is a non-profit organization that inspires girls 6-18 across the U.S. and Canada to be strong, smart, and bold through life-changing programs and experiences that help girls navigate gender, economic, and social barriers. Girls Inc. develops research-based informal education programs to encourage girls to take risks and master physical, intellectual and emotional challenges. The majority of Girls Inc. centers are located in low-income areas and provide a weekly average of 30 hours of after-school, weekend and summer activities (<a href="http://www.girlsinc.org">http://www.girlsinc.org</a>). The Brewer lab, with the help of graduate and undergraduate UCI students, is setting up ongoing, annual workshops with Girls Inc.

#### SCIENCE ART

2018 - *present* 

Co-creator of the **Colorful Cortex** store on the popular artists' website RedBubble.com, where we offer hundreds of science-related artistic products that are presented with a basic explanation of the science behind our artistic representations to encourage public interest in STEM topics.

(https://www.redbubble.com/people/colorfulcortex)

## HIGH SCHOOL

2011 - 2012

## **Research Assistant Outreach Program**

Lili Do - University High School, Irvine, CA Andrea Hagler - University High School, Irvine, CA

#### OTHER

1996 - 1998

Special U.S. liaison to The United States – Japan Goodwill Regatta

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## TEACHING ACTIVITIES

## TEACHING POSITIONS

#### INSTRUCTOR, UNIVERSITY OF CALIFORNIA, IRVINE

2018 – present	Psychology 89: Neurobiology of Cognition (lower-division undergraduate; new course created)
2017 - present	Psychology 169: Neuro Perception (upper-division undergraduate; new course created)
2009 – present	Psychology 160D / Biological Sciences N165: Brain Disorders & Behavior (upper-division undergraduate; new course created. Taught annually in academic year and summer session, ~400 students enrolled per academic year; ~100 per summer session)
2016 - 2019	Psychology 210A: Intro 1: Perception (graduate; created new version of former course)  Co-taught with Distinguished Professor George Sperling
2008 - 2017	Psychology 262: Functional Neuroanatomy (graduate-level; new course created)
2013 - 2014	Psychology 204ABC: Professional Development Seminar (graduate-level; course revision from Psych 260ABC)
2010 - 2012	Psychology 260ABC: Seminar of Cognitive Neuroscience Skills (graduate-level; new course created)
2008 - 2010	Psychology 263ABC: Current Topics in Visual Neuroscience Research (graduate-level; new course created)
2008 – 2009	Psychology 165: Brain Disorders (upper division undergraduate-level; new course created)
2007 - 2008	Psychology 269: Functional Neuroanatomy (graduate-level; new course created)
2007 - 2008	Psychology 269: Retinotopic Mapping and Diffusion Tensor Imaging (graduate-level; new course created)

## COURSE COORDINATOR, STANFORD UNIVERSITY

1997-2001

Course Coordinator, Biology 44 (core Biology Laboratory), Stanford University - Plant Physiology and Animal Behavior Laboratory Systems [The Course Coordinator designs and implements each lab system and teaches a quarter-long training course for the undergraduate and graduate Course Assistants for each lab system.]

Course Directors: Dr. Melanie Yelton & Dr. Shyamala Malladi, Lecturers in Biology.

Laboratories: 1) Animal Behavior (Research Methods & Statistics)

2) Plant Physiology (Research Methods & Statistics)

	TEACHING ASSISTANT, STANFORD UNIVERSITY
2002	Teaching Assistant, <i>Psychology 202 – Cognitive Neuroscience</i> , graduate-level Instructor: Dr. Brian Wandell, Professor of Psychology and of Electrical Engineering, by courtesy.
2001	Guest Lecturer, Psychology 196 - Contemporary Issues and Research in Psychology: Proseminar for Advanced Psychology Majors, undergraduate-level Instructor: Dr. Kalanit Grill-Spector, Assistant Professor of Psychology.
2001	Brain Day Speaker – Stanford Neuroscience students and faculty teach basic neuroscience to local middle school classes.
2000-2001	'Writing in the Major' <i>Scientific Writing Tutor, Biology 44</i> (core Biology Laboratory), undergraduate-level Course Directors: Dr. Melanie Yelton & Dr. Shyamala Malladi, Lecturers in Biology.
1998-2001	The Honors Biology Writing Tutor for Honors Biology Thesis Writers, undergraduate-level.
1998	Teaching Assistant, <i>Human Gross Anatomy</i> , Stanford University School of Medicine, medical/graduate-level Instructors: Larry Mathers, M.D., Ph.D.; Eric Glasgow, M.D.; Ian Whitmore, M.D.; John Gosling, M.D.; Robert Chase, M.D.
1996	Course Assistant, <i>Human Behavioral Biology</i> , upper division undergraduate-level Instructor: Dr. Robert Sapolsky, Professor of Biology, Neurology & Neurological Sciences, and Neurosurgery, by courtesy.
1993-1996	Course Assistant, <i>Biology 44 (core Biology Laboratory)</i> , Stanford University - Plant Physiology and Animal Behavior Laboratory Systems, undergraduate-level Course Directors: Dr. Melanie Yelton & Dr. Shyamala Malladi, Lecturers in Biology.

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# GRADUATE STUDENT SUPERVISION

## THESIS ADVISOR

#### fMRI to Perception'

• (2/2014 - present) Postdoctoral Scholar, University of California, Irvine

#### THESIS CO-ADVISOR

9/2008 – 6/2014 Derrik E. Asher, Ph.D. (advisor: Jeffrey L. Krichmar, Ph.D.)

'Action Selection and Execution with Computational Neural Networks of Neuromodulation and Sensory Integration'

5/2008 – 12/2011 Veronica Eckstein, Ph.D. (advisor: Bruce Berg, Ph.D.)

'A novel model for pitch perception and functional localization of attentionally modulated pitch and loudness perception'

2/2008 – 12/2009 Ling Lin, Ph.D. (advisor: George Sperling, Ph.D.)

'Studies of human information processing: visual memory of contrast and adaptation to reversed visual inputs'

• (2009 – present) Clinical Researcher, AccuFocus Inc.

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## POSTDOCTORAL SUPERVISION

3/2014 – 2/2017 Brian Barton, Ph.D.

- Postdoctoral Fellow on NSF grant #1329255
- Supervisor: Professor Greg Hickok; Co-supervisors: Professor Kourosh Saberi & Professor Alyssa A. Brewer

6/2009 – 12/2010 Stefanie A. Drew, Ph.D.

- ♦ <u>2012 present</u>: Assistant Professor, California State University, Northridge
- ♦ <u>2010 2012</u>: Lecturer, Pomona College, Claremont, CA
- <u>2010-2012</u>: Post-doctoral Fellow, Western University of Health Sciences, Department of Psychology, College of Optometry, Pomona, CA

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		DISSERTATION COMMITTEES
Ongoing	Alex Teghipco	Member, Dept. of Cognitive Sciences
Ongoing	Ricardo Azevedo	Conflict of Interest Advisor, Dept. of Neurobiology and Behavior
11/2019	Kirstie Salinas	Member, Dept. of Neurobiology and Behavior
12/2017	Howard Yang	Member, Dept. of Cognitive Sciences
8/2014	Jonathan Venezia	Member, Dept. of Cognitive Sciences
5/2014	Derrik Asher	Co-advisor, Dept. of Cognitive Sciences
12/2013	Brian Barton	Advisor, Dept. of Cognitive Sciences
6/2013	Mike Avery	Member, Dept. of Cognitive Sciences
7/2012	Lavanya Krishna	Member, Dept. of Cognitive Sciences
6/2012	Anna Lisette Isenberg	Member, Dept. of Cognitive Sciences
12/2011	Veronica Eckstein	Co-advisor, Dept. of Cognitive Sciences
5/2011	Steven Thurman	Member, Dept. of Cognitive Sciences
12/2009	Ling Lin	Co-advisor, Dept. of Cognitive Sciences
5/2009	Stefanie Drew	Member, Dept. of Cognitive Sciences
6/2008	Pamela Jeter	Member, Dept. of Cognitive Sciences

## ADVANCEMENT TO CANDIDACY COMMITTEES

9/2020	Alex Teghipco	Member, Dept. of Cognitive Sciences
9/2020	Ricardo Azevedo	Conflict of Interest Advisor, Dept. of Neurobiology and Behavior
9/2017	Kirstie Salinas	Member, Dept. of Neurobiology and Behavior
9/2015	Howard Yang	Member, Dept. of Cognitive Sciences
3/2014	Leila Feinberg	Member, Dept. of Neurobiology and Behavior
3/2014	Derek Huffman	Member, Depts. of Neurobiology and Behavior & Center for the Neurobiology of Learning and Memory
10/2013	Jonathan Venezia	Member, Dept. of Cognitive Sciences
2/2012	Anna Lisette Isenberg	Member, Dept. of Cognitive Sciences
9/2011	Derrik Asher	Co-advisor, Dept. of Cognitive Sciences
6/2011	Mike Avery	Member, Dept. of Cognitive Sciences
5/2011	Lavanya Krishna	Member, Dept. of Cognitive Sciences
4/2011	Brian Barton	Advisor, Dept. of Cognitive Sciences

3/2011	James Pooley	Member, Dept. of Cognitive Sciences
11/2010	David Bridwell	Member, Dept. of Cognitive Sciences
10/2010	Joyce Lacy	Member, Depts. of Neurobiology and Behavior & Center for the Neurobiology of Learning and Memory
10/2008	Steven Thurman	Member, Dept. of Cognitive Sciences
3/2008	Pamela Jeter	Member, Dept. of Cognitive Sciences

## COGNITIVE NEUROSCIENCE CONCENTRATION COMMITTEES (2ND YEAR EXAM)

6/2018	Alex Teghipco	Member, Dept. of Cognitive Sciences
03/2015	Laris Rodriguez Cintron	Member, Dept. of Cognitive Sciences
10/2012	Alexis Craig	Member, Dept. of Cognitive Sciences
9/2012	Jack Payne	Member, Dept. of Cognitive Sciences
10/2010, 5/2011	Andrew Zaldivar (exam repeated)	Member, Dept. of Cognitive Sciences
11/2009	Brian Barton	Advisor, Dept. of Cognitive Sciences
11/2009	Derrik Asher	Advisor, Dept. of Cognitive Sciences
6/2009	Mike Avery	Member, Dept. of Cognitive Sciences
6/2009	Jonathan Venezia	Member, Dept. of Cognitive Sciences

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## UNDERGRADUATE STUDENT SUPERVISION

# UNDERGRADUATE RESEARCH OPPORTUNITIES GRANTS (UROP) & SUMMER UNDERGRADUATE RESEARCH PROGRAM FELLOWSHIPS (SURP)

9/2019 - present	Kavya Seth, Are Common Indoor Carbon Dioxide Levels Correlated with Detrimental Effects on Cognition?
9/2019 - present	Jarrett Ebersberger, The Effects of Specific Video-Game Expertise on Visual Working Memory (Special Call: Computer Gaming)
3/2019 - present	Jarrett Ebersberger, Fibromyalgia: Measures of Functional Status, Quality of Life, and Disparities in Medical Care
4/2019 - 6/2020	Alejandra Hernandez, Is There a Correlation between Bimanual Interference Skills

	and Visual Working Memory?
4/2019 - 6/2020	Sarah Alloush, <i>Is there a Correlation between Nutrition and Measures of Cognitive Function?</i>
4/2019 - 6/2020	Cathleen Molloy, Differences in Affective Rating of Images and Textual Descriptions of Events Compared with Measures of Emotional Dysregulation with Depression
4/2018 - 6/2019	Cathleen Molloy, Saliency of intrusive visual imager: somatic and perceptual markers related to depression symptom severity
11/2011 - 6/2013	Golroxan (Roxan) Shoa, Visual Working Memory in Cortical Visual Field Maps
10/2011 - 6/2012	Brianna Penley, Comparative Analysis of Corollary Discharge between Normal Subjects and Patients with Visual Hemianopsia
10/2011 - 6/2012	Aaron Craddolph, Comparative Analysis of Corollary Discharge between Normal Subjects and Patients with Visual Hemianopsia
11/2010 - 7/2012	Melanie Humphrey, Visual-Motor Adaptation to Left-Right Reversed Visual Input
8/2010 - 6/2012	Jacob Redmond (Previously: Messer), Structural and Functional Analysis of Human Cortical and Subcortical Visual Pathways

## RESEARCH ASSISTANTS

9/2019 - present	Kavya Seth
9/2019 - present	Nikki Zangenah
3/2019 - present	Jarrett Ebersberger
1/2020 - 6/2020	Suhani Shankar
4/2019 - 6/2020	Alejandra Hernandez
4/2019 - 6/2020	Sarah Alloush
4/2019 - 6/2020	Venus Zhao
4/2019 - 6/2020	Julianna Marckwordt
4/2019 - 6/2019	Amanda Jameson
4/2019 - 6/2019	Hazel Jackson
4/2019 - 6/2019	Emily Shapiro
4/2019 - 6/2019	Alyssa Whetstone
6/2018 - 6/2019	Dana Le
6/2018 - 12/2018	Tina Torabinejad
4/2018 - 6/2020	Cathleen Molloy
12/2011 - 6/2012	Elhum (Ellie) Shamshiri

11/2011 - 6/2013	Golroxan (Roxan) Shoa
10/2011 - 6/2012	Brianna Penley
10/2011 - 6/2012	Aaron Craddolph
5/2011 - 6/2012	Mark Dennison
12/2010 - 6/2011	Alex Minick
11/2010 - 7/2012	Melanie Humphrey
8/2010 - 6/2012	Jacob Redmond (Previously: Messer)
4/2010 - 6/2012	Anne Nguyen
4/2010 - 9/2010	Anthony Bonilla
4/2010 - 3/2011	Benjamin Szu
4/2010 - 1/2011	Chandni Patel
4/2010 - 1/2012	Kelly Wang
4/2010 - 6/2012	Mike Ward
4/2010 - 6/2012	William Quezada
4/2010 - 8/2011	Elizabeth Orient
4/2010 - 6/2010	Yimy Villa
4/2009 - 6/2009	Martin Dean
4/2009 - 6/2009	Elizabeth Jordan
4/2009 - 6/2009	Saman Mohseni
1/2009 - 6/2009	Christine Mikhail
12/2008 - 6/2009	Christian Herrera
9/2008 - 6/2009	Myra Engalla

# OTHER RESEARCH SUPERVISION

7/2008 – 12/2008	Cindy Shih	<b>Advisor</b> , Directed Individual/Independent Study
6/2008 - 5/2009	Robert Coleman	Supervisor, Internship
6/2008 - 4/2009	Danting (Dantian) Liu	Supervisor, Directed Individual/Independent Study
5/2008 - 1/2009	Nick Baitoo	Supervisor, Internship

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