Curriculum Vitae
Michael A. Silver

Contact Information
School of Optometry
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Education

1999 Ph.D. in Neuroscience, Univ. of Calif., San Francisco (advisor: Michael Stryker)
1991 B.S. in Biological Sciences, Carnegie Mellon University, Pittsburgh, PA
1991 B.S. in Chemistry, Carnegie Mellon University, Pittsburgh, PA

Research Experience

7/2018 – present Professor of Optometry and Vision Science and Neuroscience, School of Optometry and Helen Wills Neuroscience Institute, University of California, Berkeley (also Affiliated Professor in Department of Psychology)

7/2011 – 6/2018 Associate Professor of Optometry and Vision Science and Neuroscience, University of California, Berkeley

7/2005 – 6/2011 Assistant Professor of Optometry and Vision Science and Neuroscience, University of California, Berkeley

2/2002 – 6/2005 Postdoctoral fellow, Department of Psychology, Stanford University, laboratory of David Heeger, and Department of Psychology, University of California, Berkeley, laboratory of Mark D'Esposito. Functional magnetic resonance imaging and pharmacological studies of human visual perception and attention.

4/2000 – 1/2002 Postdoctoral fellow, Max Planck Institute for Biological Cybernetics, Tübingen, Germany, laboratory of Nikos Logothetis. Psychophysical and electrophysiological studies of neural correlates of visual perception.

11/1999 – 3/2000 Postdoctoral fellow, RIKEN Institute, Wako-shi, Japan, laboratory of Takao Hensch. Effects of visual cortical and basal forebrain nerve growth factor administration on cortical EEG activity.

9/1992 – 10/1999 Graduate student, Department of Physiology, University of California, San Francisco, laboratory of Michael Stryker. Anatomical studies of changes in distributions of presynaptic terminals in visual cortex following monocular deprivation. Effects of nerve growth factor administration on cortical plasticity (assessed using single-unit electrophysiology and intrinsic signal optical imaging) and on basal forebrain cell biology (assessed with immunohistochemistry).

Awards and Fellowships

2011 Visiting Scholar, Wales Institute of Cognitive Neuroscience and School of Psychology, Bangor University, Wales

2010 Recipient, Royal Society Travel Grant for International Collaboration, to visit the Institute of Neuroscience, Newcastle University, England

2002-2005 National Institutes of Health, Ruth L. Kirschstein Postdoctoral National Research Service Award (NRSA), administered by the National Eye Institute

1993-1998 Howard Hughes Medical Institute Predoctoral Fellowship in Biological Sciences

1992-1993 University of California Regents Fellowship

1991-1992 Rotary Foundation Scholarship, Academic Department of Pharmacology, Royal Free Hospital School of Medicine, London, England

Grants

2021 – 2025 R01 grant, National Institute on Aging, "Using nicotine to reverse age-related auditory processing deficits", $625,000 (with Raju Metherate, Khaleel Razak, and Fan-Geng Zeng)

2020 – 2022 Anonymous gift, "Berkeley Psychedelic Research Center" (with Dacher Keltner and Michael Pollan), $1,250,000

2019 – 2021 Anonymous gift, "An integrated multi-institution investigation into novel therapeutic uses of psilocybin and underlying brain mechanisms (with Josh Woolley and Boris Heifets), $1,500,000 total award, $350,000 to UC Berkeley

2019 Seed Grant for Brain Imaging Research, Institute of Cognitive and Brain Sciences, University of California, Berkeley, $6500

2017 – 2018 Multicampus Research Programs and Initiatives award, University of California, $296,000, "Towards a nicotine therapy for age-related hearing disorders", (with Raju Metherate, Khaleel Razak, and Fan-Gang Zeng)

2016 – 2020 R01 grant, National Eye Institute, "Effects of attention and acetylcholine on cortical stimulus representations", $1,250,000

2014 – 2017 National Science Foundation, "Cholinergic and sleep regulation of human memory and learning", $67,624 subcontract (PI: Sara Mednick)

2014 – 2016 R21 grant, National Eye Institute, "fMRI of human LGN: Functional subdivisions and geniculocortical connectivity", $275,000 (with David Feinberg)

2014 – 2015 Cottonwood Research Foundation, "The effect of monoamine oxidase inhibition on the detection and quantitation of endogenous psychoactive tryptamines", $2000

2011 – 2014 Gustavus and Louise Pfeiffer Research Foundation, "Enhancement of visual perception in patients with visual impairments", $221,000

2012 – 2013 Mary Elizabeth Rennie Endowment for Epilepsy Research, "The effects of pharmacologically-reduced propagation of cerebral cortical activity on visual perception", $25,000

2010 – 2012 R21 grant, National Eye Institute, "Neural mechanisms of perceptual learning in the human brain", $275,000

2009 – 2010 Chancellor's Faculty Partnership Fund, UC Berkeley, "Space perception and cortical organization in patients with retinal degeneration", $100,000 (with Lynn Robertson)

2008 – 2010 R21 grant, National Eye Institute, "Analysis of human cortical networks during sustained visuospatial attention", $275,000

2008 – 2010 Lundbeck Foundation, "Acetylcholine and attention networks in the human brain", $84,697
2008 – 2009 Hellman Family Faculty Fund, UC Berkeley, "Pharmacological studies of spatial integration and visual perception in macular degeneration patients", $37,000
2007 – 2008 Lundbeck Foundation, "Physiological and pharmacological analysis of cortical networks during sustained visuospatial attention", $68,907
2007 – 2008 Fight for Sight Foundation Grant-in-Aid, "Space perception and cortical organization in patients with retinal degeneration", $20,000

Teaching Experience

Instructor, VS262, Visual Cognitive Neuroscience (Vision Science, Psychology, Neuroscience, and Bioengineering graduate students; 2009, 2012, 2015, 2018, 2021)
Instructor, VS300, Teaching Methods in Vision Science (Vision Science graduate students; 2006 - 2016)
Co-instructor, VS206D, Neuroanatomy and Neurophysiology of the Eye and Visual System (Optometry students; 2006 - present)
Co-instructor, VS212B, Visual Neurophysiology and Development (Vision Science, Psychology, Neuroscience, Computer Science, and Bioengineering graduate students; 2006 - 2007; 2009 - 2016)
Co-instructor, VS260C, Introduction to Visual Neuroscience (Vision Science, Psychology, and Computer Science graduate students, 2018 – present)
Co-instructor, Opt10, Vision in a Changing Environment (freshman seminar; 2006 - present)
Co-instructor, Neurosc290B, Student Research Presentation Seminar (Neuroscience graduate students; 2008, 2012, 2013, 2017 - present)
Guest Lecturer, Psych214, Functional Magnetic Resonance Imaging Methods (Psychology and Neuroscience graduate students; 2006 - 2015)
Guest Lecturer, CogSci 98/198, Berkeley Review of CogSci Articles (Cognitive Science undergraduate students; 2012, 2013, 2016)

Mentoring

2021 – present PhD supervisor, Reem Almagati, UC Berkeley Vision Science Program
2021 – present PhD supervisor, Jennifer Holmberg, UC Berkeley Neuroscience Program (co-mentor with Jack Gallant)
2021 – present PhD supervisor, Tyler Toueg, UC Berkeley Neuroscience Program (co-mentor with William Jagust)
2021 – present postdoctoral supervisor, Sean Noah
2019 – 2022 PhD supervisor, Joel Bowen, UC Berkeley Vision Science Program
2016 – present PhD supervisor, Arjun Mukerji, UC Berkeley Neuroscience Program
2017 – 2022 PhD supervisor, Justin Theiss, UC Berkeley Vision Science Program
2020 – 2021 Master's degree supervisor, Julie Self, UC Berkeley Vision Science Program
2018 – 2021 postdoctoral supervisor, Devavrat Vartak
2016 – 2021 PhD supervisor, Elizabeth Lawler, UC Berkeley Vision Science Program
2014 – 2019 PhD supervisor, Kelly Byrne, UC Berkeley Vision Science Program
2014 – 2017 postdoctoral supervisor, Adrien Chopin (co-mentor with Dennis Levi)
2013 – 2014 postdoctoral supervisor, You Lim (Carey) Huh (co-mentor with Dennis Levi)
2013 – 2018 PhD supervisor, Sahar Yousef, UC Berkeley Vision Science Program
2013 – 2017 PhD supervisor, Adeola Harewood, UC Berkeley Vision Science Program
2012 – 2015 postdoctoral supervisor, Eunice Yang (co-mentor with Dennis Levi)

2010 – 2015 PhD supervisor, Elise Piazza, UC Berkeley Vision Science Program (co-mentor with Marty Banks)
2009 – 2013 PhD supervisor, Rachel Denison, UC Berkeley Neuroscience Program
2009 – 2013 PhD supervisor, Caterina Gratton, UC Berkeley Neuroscience Program (co-mentor with Mark D'Esposito)
2007 – 2012 PhD supervisor, David Bressler, UC Berkeley Vision Science Program
2010 – 2013 postdoctoral supervisor, Summer Sheremata
2006 – 2010 PhD supervisor, Ariel Rokem, UC Berkeley Neuroscience Program
2008, 2010 Mentor in Pierce College/UC Berkeley Partnership in Neuroscience (Amir Dori and Ebonnie Widjaja)
2007 - present Mentor in National Eye Institute T35 Summer Research Training Program for Optometry students (Michael Chang, Han Duong, Rachel Kaneta, Debbie Lieu, Shradha Sanghvi, Betty Wang, Karen Wong, Yujia Zhang)
2006 – present Mentor in UC Berkeley Undergraduate Research Apprentice Program (Ahmad Ahmadzada, Julia Alcaraz, Carissa Alforque, Jnana Aditya Challa, Kimberly Chan, Andrew Chang, Hong-Chun Chao, David Garg, Olivia Goodman, Vanessa Hoffman, Anokhi Kastia, Jonathon Kelvey, Matthew Koh, Anthony LaBarbera, Kailin Li, Liyang Li, Abizer Lokhandwala, Andrew Lu, Jessica McElroy, Ashray Manepalli, Dorsa Moslehi, Sen Ninan, Matthew Peters, Natalie Pierson, Asha Raghu, Tomer Rotstein, Maxwell Schram, Miranda Shen, Sabrina Shen, Samuel Shu, Akber Sheikh, Jacob Sheynin, Andrew Shibata, Anikait Singh, Sharanya Thiagarajan, Jonathan Toomim, Kathy Tong, Joanna Tung, Christopher Vasilas, Iris Vold, Frank Wang, Leo Zhang)
2006 – 2009 Postdoctoral supervisor, Thomas Lauritzen
2006 Mentor in UC Berkeley Summer Bioengineering Research Program (Clare Gollnick)

Professional Service

2021 – present Advisory Committee, Helen Wills Neuroscience Institute
2020 – present Director, UC Berkeley Center for the Science of Psychedelics
2018 – 2019 Chair, Faculty Search Committee, School of Optometry
2018 Co-organizer, Sixth International Workshop on Perceptual Learning, Moorea, Tahiti
2017 – present Chair, Admissions Committee, Neuroscience Graduate Program
2017 – present Director, Neuroscience Graduate Program
2017 – 2020 Equity Advisor, Helen Wills Neuroscience Institute
2017 – present Co-Director, Software Development Module, National Eye Institute Core Grant, Vision Science Graduate Program
2017 – present Executive Committee, Helen Wills Neuroscience Institute
2017 – present Strategic Planning Steering Committee, School of Optometry
2017 Faculty Search Committee, School of Optometry
2017 Interview Committee, Senior Assistant Dean / Chief Operating Officer position, School of Optometry
2017 Interview Committee, Assistant Dean of Student Affairs position, School of Optometry
2017 Session Chair, International Conference on Cognitive and Behavioral Psychology

2016 – 2020	Admissions Committee, Vision Science Graduate Program
2016 – 2020	Equity Advisor, School of Optometry and Vision Science Graduate Program
2016 – present	Head Graduate Advisor, Vision Science Graduate Program
2016 – 2019	Committee for the Protection of Human Subjects (UC Berkeley's Institutional Review Board)
2016 – present	Chair, Advising Committee, Neuroscience Graduate Program
2016 – present	Strategic Planning Committee, School of Optometry
2015 – 2018	Faculty Club Board of Directors, UC Berkeley
2014 – 2016	Oxyopia Seminar Series Committee, Vision Science Graduate Program
2014 – 2015	Faculty Search Committee, School of Optometry
2013	Admissions Committee, Neuroscience Graduate Program
2013	Session Chair, Society for Neuroscience conference
2012 – 2019	Chair, Committee on Graduating with Honors, School of Optometry
2012 – present	Curriculum Committee, Neuroscience Graduate Program
2012 – 2020	Faculty Sponsor, Regents' and Chancellor's Scholars, UC Berkeley
2012 – present	Vision Science Executive Committee, UC Berkeley
2012 – present	Vision Science Graduate Advisory Committee, UC Berkeley
2012 – 2014	Chair, Oxyopia Seminar Series Committee, Vision Science Graduate Program
2011 – present	Junior Faculty Development Committee, School of Optometry
2011 – 2014	Academic Advisor, Neuroscience Graduate Program
2011 – 2014	Admissions Committee, School of Optometry
2011 – 2014	Committee for the Protection of Human Subjects
2011	Team Leader, Working Group on How Students Learn, Graduate Student Instructor Teaching & Resource Center, UC Berkeley
2010	Chair and Organizer, minisymposium entitled "The Role of Acetylcholine in Cortical Processing and Plasticity", Society for Neuroscience Conference
2009 – 2011	Chair of the Faculty of the School of Optometry, UC Berkeley
2009 – 2011	Administration Committee, School of Optometry
2009 – 2011	Academic Advisory Committee, School of Optometry
2008 – 2011	Admissions Committee, Vision Science Graduate Program
2008	*ad hoc* Merit Review Committee, School of Optometry
2007 – 2011	Curriculum Committee, School of Optometry
2007 – 2012	Committee on Graduating with Honors, School of Optometry
2007 – 2010	President/Representative, San Francisco Bay Area Society for Neuroscience Chapter
2007 – 2016	Faculty Advisor for Graduate Student Instructor Affairs, Vision Science Graduate Program
2007 – present	Optometry Student Fellowships and Awards Advisory Committee, UC Berkeley
2007 – 2009	Academic Advisor, Neuroscience Graduate Program
2007	Co-presenter, tutorial entitled "The Pharmacology of Perception", 11th annual meeting of the Association for the Scientific Study of Consciousness
2007	Session Chair, Society for Neuroscience conference
2007	Admissions Committee, Neuroscience Graduate Program
2006 – 2009	Secretary of the Faculty of the School of Optometry, UC Berkeley
2006	Admissions Committee, Vision Science Graduate Program

Thesis committee member:
Bioengineering – Jennifer Cummings, Gary Lee, Storm Slivkoff, Andrew Vargas, An Vu
Biophysics – Andrew Ligeralde
Molecular and Cell Biology – Thomas Russell, Hyesoo Youn
Neuroscience – Elena Allen, Matthew Baggott, Natalia Bilenko, Daniel Bliss, Emily Cooper, Courtney Gallen, Michael Goard, Caterina Gratton, Sarah Hillenbrand, Christina Karns, Alina Liberman, Elizabeth Lorenc, Carson McNeil, Nathan Munet, Melissa Newton, Benjamin Parker, Sara Popham, Katarina Slama, Daniel Toker, Bradley Voytek
Philosophy – Grayson Abid
Psychology – Bryan Alvarez, Matthew Cain, Allison Connell, Amy Finn, Jason Fischer, Francesca Fortenbaugh, Anna Kosovicheva, Ayelet Landau, Taraz Lee, Allison Leib, Enitan Marcelle, Vinitha Rangarajan, Michael Souza, Santani Teng, Joyce Yuan, Tianjiao Zhang
Vision Science – Avigael Aizenman, Teresa Cañas Bajo, Julia Cox, Taekjun Kim, Peiyi Ko, Michael Oliver, Weston Pack, Michele Winter

Thesis committee external member:
Matthew Caywood (Neuroscience, University of California, San Francisco), James Chadick (Neuroscience, University of California, San Francisco), Elizabeth McDevitt (University of California, Riverside)

Qualifying exam committee member:
Bioengineering – Omar Al-Hashimi, David Kim, Kenneth Kay, Naomi Kort, Gary Lee, Storm Slivkoff, Andrew Vargas, An Vu, Tianjiao Zhang
Electrical Engineering/Computer Science – Pierre Garrigues
Molecular and Cell Biology – Hyesoo Youn
Neuroscience – Jenna Adams, Elena Allen, Daniel Bliss, Franklin Caval-Holme, Emily Cooper, Adam Eichenbaum, Courtney Gallen, Sarah Hillenbrand, Samuel Israel, Amanda LeBel, Amy LeMessurier, John Long, Odilia Lu, Carson McNeil, Emily Meschke, Nathan Munet, Benjamin Parker, Christopher Rodgers, Katarina Slama, Daniel Toker
Philosophy – Grayson Abid
Psychology – Samy Abdel-Ghaffar, Bryan Alvarez, Matthew Cain, Zhimin Chen, Allison Connell, Jason Fischer, Francesca Fortenbaugh, Susan Hao, Anna Kosovicheva, Ayelet Landau, Taraz Lee, Allison Leib, Vinitha Rangarajan, Justin Riddle, Michael Souza, Santani Teng, Jonathan Tsay, Willa Voorhies, Jason Vytlacil, Joyce Yuan
Vision Science –Amanda Alvarez, David Bressler, Wesley Chaney, Brian Cheung, Sangita Dandekar, Tsung-Wei Ke, Taekjun Kim, Iona McLean, Chetan Nandakumar, Michael Oliver, Stephanie Reeves, Zhihang Ren, Shuang Song, Baladitya Yellapragada

Qualifying exam committee chair:
Neuroscience – Natalie Bernstein, Natalia Bilenko, Xue Gong, Christopher Kymn, Alina Liberman, Elizabeth Lorenc, Jacob Miller, Sara Popham
Psychology – Ye Xia
Vision Science – Avigael Aizenman, Teresa Cañas Bajo, Albert Chin, Julia Cox, Galen Chuang, Vasha Dutell, Timothy Erlenmeyer, Christina Gambacorta, James Gao, Benno Giammarinaro, Angelica Godinez, Mayur Mudigonda, April Myers, Weston Pack, Dylan Paiton, Elizabeth Rislove, Steven Shepard, Christian Shewmake, Lauren Spano, Dustin Stansbury, Michele Winter

Invited Talks

2023 National Institutes of Health Psychedelic Science and Medicine Interest Group
Osher Lifelong Learning Institute
University of California Psychedelic Research Consortium Seminar Series

2022 Perception & Action Seminar Series, Department of Cognitive, Linguistic & Psychological Sciences, Brown University
Psychedemia Conference, Center for Psychedelic Drug Research and Education, The Ohio State University
Science@Cal Lecture Series, UC Berkeley

2021 Berkeley Neuroscience Conference
Berkeley Vision Science Retreat
Psychedelic and Entheogen Academic Council (PEAC)
NIH Psilocybin Research Speaker Series

2019 Annual Interdisciplinary Conference, Teton Village, Wyoming
The Neural Basis of Attention: Festschrift in Honor of Bob Rafal, University of California, Berkeley

2018 Berkeley Summer Course in Mining and Modeling of Neuroscience Data, University of California, Berkeley
Sixth International Workshop on Perceptual Learning, Moorea, Tahiti
Cognitive Neuroscience seminar series, Department of Psychology, University of California, Berkeley

2017 Center for Hearing Research Annual Hearing Symposium, University of California, Irvine
International Symposium honoring Michael Stryker: Forty Years of Visual Cortex, University of California, San Francisco

2016 Colloquium, Smith-Kettlewell Eye Research Institute, San Francisco, CA

2015 Bernstein Center for Computational Neuroscience, Charité – Universitätsmedizin, Berlin, Germany
Department of Psychology, University of California, Riverside
Department of Psychology, Vrije Universiteit, Amsterdam, the Netherlands
Exploring the Mind Series, Center for Mind & Brain, University of California, Davis
Kosmos Club, UC Berkeley
Neuroscience Seminar Series, Integrative Biology and Neuroscience, Florida Atlantic University, Boca Raton, FL
"Perceptual dysfunction in neuropsychiatric disorders – translational approaches", Symposium, Joint Meeting of the European Brain and Behaviour Society and the European Behavioural Pharmacology Society, Verona, Italy

2014 Vision, Imaging Science, and Technology Activities (VISTA) Group, Stanford University

2013 "Brain science for game-makers: design principles of successful brain change" workshop, Entertainment Software and Cognitive Neurotherapeutics Society, conference, University of Southern California
Data Science Lecture series, Panel Discussion, UC Berkeley
Department of Psychology, University of Durham, England

2012 Bay Area Neuroscience Gathering, UC Berkeley (Keynote Speaker)
Department of Psychology, University of Minnesota, Minneapolis, MN
"Harnessing cortical plasticity for therapeutic purposes", Panel Discussion, annual meeting of the American College of Neuropsychopharmacology, Hollywood, FL

2011 California Cognitive Science Conference, UC Berkeley
Cal Science & Engineering Festival, UC Berkeley
Institute of Neuroscience, University of Oregon, Eugene, OR
Palo Alto Veterans Administration, Palo Alto, CA
Plasticity of Neural Systems session, Entertainment Software and Cognitive Neurotherapeutics Society conference, UC San Francisco
"Regulating access to consciousness: cortical mechanisms of attention", Symposium, International Conference on Cognitive Neuroscience, Mallorca, Spain
Research in Vision Science Group, School of Optometry, University of Montreal, Canada
School of Psychology, Bangor University, Wales
Third International Workshop on Visual Attention, Allahabad, India

2010 Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, MD
Human Vision and Electronic Imaging session, Society for Imaging Science and Technology conference, San Jose, CA
Institute of Neuroscience, Newcastle University, England
Presidential Symposium, annual meeting of the Society for Psychophysiological Research, Portland, OR
Science@Cal Lecture Series, UC Berkeley
Townsend Center Working Group in the Philosophy of Mind, UC Berkeley
Vision Colloquium Series, Department of Psychology, Boston University, Boston, MA

2009 Cognitive Neuroscience Seminar, University of California, San Francisco
Department of Psychology, University of California, San Diego
National Youth Leadership Forum, UC Berkeley
Progress in Systems Biology Symposium, Ottawa Institute of Systems Biology, University of Ottawa, Canada

2008 Biology Fellows Program Summer Research Seminar, UC Berkeley
Henry H. Wheeler Jr. Brain Imaging Center Research Day, UC Berkeley
National Youth Leadership Forum, UC Berkeley

2007 Henry H. Wheeler Jr. Brain Imaging Center Research Day, UC Berkeley
Pierce College, Woodland Hills, CA
Vision, Imaging Science, and Technology Activities (VISTA) Group, Stanford University

2006 Behavioral Neurology seminar, University of California, San Francisco
Human Vision and Electronic Imaging session, Society for Imaging Science and Technology conference, San Jose, CA

2005 Center for Mind and Brain, University of California, Davis
Colloquium, Smith-Kettlewell Eye Research Institute, San Francisco, CA
Department of Psychology, University of Michigan
Interdisciplinary Forum on Cognitive Neuroscience and Neuroimaging, University of California, San Francisco
Oxyopia seminar series, School of Optometry, UC Berkeley

2004 Center for Molecular and Behavioral Neuroscience, Rutgers University, Newark, NJ
Keck Center for Integrative Neuroscience, Department of Physiology, University of California, San Francisco

2002 Institute Colloquium, Max Planck Institute for Biological Cybernetics, Tübingen, Germany

2001 Colloquium, Smith-Kettlewell Eye Research Institute, San Francisco, CA

2000 Brain Science Institute Forum, RIKEN Institute, Wako-shi, Japan
Communications Research Laboratory, Kansai Advanced Research Center, Kobe, Japan
Department of Neurophysiology, Osaka University Medical School, Japan
Laboratory for Neural Circuits, RIKEN Institute, Nagoya, Japan

Reviews

Associate Editor, Frontiers in Human Neuroscience
Review Editor, eLife, Frontiers in Systems Neuroscience
Feature Editor, Special Issue in Journal of Vision – Advances in Perceptual Learning

Journals: Attention, Perception, & Psychophysics, Behavioural Brain Research, Biological Psychology, Brain Research, Brain Structure and Function, Brain Topography, Cerebral Cortex, Consciousness and Cognition, Current Biology, Current Opinion in Psychology, eLife, eNeuro, European Journal of Neuroscience, Frontiers in Biological Sciences, Frontiers in Human Neuroscience, Frontiers in Neuroanatomy, Frontiers in Neural Circuits, Frontiers in Neuroscience, Investigative Ophthalmology & Vision Science, iScience, Journal of Cognitive Neuroscience, Journal of Neurophysiology, Journal of Neuroscience, Journal of Physiology – Paris, Journal of Psychopharmacology, Journal of Vision, Journal of Visualized Experiments, Nature Communications, Nature Neuroscience, Neuroimage, Neuron, Neuropsychologia, Neuropsychology, Neuroreport, Neuroscience, Neuroscience Letters, Optometry and Vision Science, PeerJ, PLoS Biology, PLoS ONE, Proceedings of the National Academy of Sciences USA, Psychological Science, Psychonomic Bulletin & Review, Science Advances, Scientific Reports, Trends in Cognitive Sciences, Vision Research, Visual Cognition

Granting agencies:
Ad hoc reviewer, Cognition and Perception (CP) study section
Ad hoc reviewer, Mechanisms of Sensory, Perceptual, and Cognitive Processes (SPC) study section
Agence Nationale de la Recherche (French National Research Agency)
Deutsche Forschungsgemeinschaft (German Research Foundation)
European Research Council
France-Berkeley Fund
Israeli Science Foundation
National Eye Institute Special Emphasis Panel (ZEY1 VSN 03, K99 Career Development Awards)
National Eye Institute Special Emphasis Panel (ZEY1 VSN 08, Loan Repayment Program, Clinical (L30) and Pediatric (L40) applications)
National Institutes of Health Special Emphasis Panel (ZRG1 BBBB-J, "Cognition, Perception, and Motion Function)
National Institutes of Health Special Emphasis Panel (ZRG1 PSE-P 55, "Accelerating the Pace of Drug Abuse Research Using Existing Data")
National Institutes of Health Scientific Review Group (ZRG1 F02B-E 20 L, Fellowships: Sensory and Motor Neuroscience, Cognition and Perception)
National Science Foundation (Cognitive Neuroscience Program)
Netherlands Organisation for Scientific Research
Summer Undergraduate Research Fellows program (UC Berkeley)

Conference papers: 25th Annual Conference on Neural Information Processing Systems (NIPS)

Media Coverage
http://motherboard.vice.com/read/drugs-designed-to-improve-brain-function-could-enhance-healthy-brains (Rokem and Silver, 2013)

Science Daily:
http://www.sciencedaily.com/releases/2010/03/100310175130.htm (Yoon et al., 2010)
http://www.sciencedaily.com/releases/2010/09/100916121326.htm (Rokem and Silver, 2010)
https://www.sciencedaily.com/releases/2015/02/150218123739.htm (Sheremata and Silver, 2015)

Science Today radio program (broadcast nationally on CBS radio):
http://www.ucop.edu/sciencetoday/article/24468 (Rokem and Silver, 2010)
http://www.ucop.edu/sciencetoday/article/24626 (Rokem et al., 2010)
http://www.ucop.edu/sciencetoday/article/29825 (Piazza et al., 2013)

http://online.wsj.com/article/SB10001424053111904279004576524321377942288.html (McDevitt et al., 2014)

https://sanfrancisco.cbslocal.com/2020/09/17/uc-berkeley-announces-new-research-project-on-psychedelic-drugs/ (UC Berkeley Center for the Science of Psychedelics)
https://www.radio.com/kcbsradio/news/local/new-uc-berkeley-research-center-stud (UC Berkeley Center for the Science of Psychedelics)
https://alumni.berkeley.edu/california-magazine/just-in/2021-03-10/the-edge-episode-10-a-shroom-of-ones-own (UC Berkeley Center for the Science of Psychedelics)

Publications
Silver MA, Yang ZW, Ganguli R, Nimgaonkar VL (1994) An inhibitory effect of psychoactive drugs on a human neuroblastoma cell line. *Biological Psychiatry* 35:824-826.

Silver MA, Stryker MP (1999) Synaptic density in geniculocortical afferents remains constant after monocular deprivation in the cat. *Journal of Neuroscience* 19:10829-10842.

Silver MA, Stryker MP (2000) A method for measuring colocalization of presynaptic markers with anatomically labeled axons using double label immunofluorescence and confocal microscopy. *Journal of Neuroscience Methods* 94:205-215.

Silver MA, Stryker MP (2000) Distributions of synaptic vesicle proteins and GAD65 in deprived and nondeprived ocular dominance columns in layer IV of kitten primary visual cortex are unaffected by monocular deprivation. *Journal of Comparative Neurology* 422:652-664.

Silver MA, Stryker MP (2001) TrkB-like immunoreactivity is present on geniculocortical afferents in layer IV of kitten primary visual cortex. *Journal of Comparative Neurology* 436:391-398.

Silver MA, Fagiolini M, Gillespie DC, Howe CL, Frank MG, Issa NP, Antonini A, Stryker MP (2001) Infusion of nerve growth factor (NGF) into kitten visual cortex increases immunoreactivity for NGF, NGF receptors, and choline acetyltransferase in basal forebrain

without affecting ocular dominance plasticity or column development. *Neuroscience* 108:569-585.

Silver MA, Logothetis NK (2004) Grouping and segmentation in binocular rivalry. *Vision Research* 44:1675-1692.

Silver MA, Ress D, Heeger DJ (2005) Topographic maps of visual spatial attention in human parietal cortex. *Journal of Neurophysiology* 94:1358-1371. Selected as Faculty of 1000 Biology "Must Read" article: http://www.f1000biology.com/article/15817643/evaluation

Silver MA, Ress D, Heeger DJ (2007) Neural correlates of sustained spatial attention in human early visual cortex. *Journal of Neurophysiology* 97:229-237.

Silver MA, Logothetis NK (2007) Temporal frequency and contrast tagging bias the type of competition in interocular switch rivalry. *Vision Research* 47:532-543.

Silver MA, Shenhav A, D'Esposito M (2008) Cholinergic enhancement reduces spatial spread of visual responses in human early visual cortex. *Neuron* 60:904-914.

Lauritzen TZ, D'Esposito M, Heeger DJ, Silver MA (2009) Top-down flow of visual spatial attention signals from parietal to occipital cortex. *Journal of Vision* 9(13):18:1-14.

Rokem A, Silver MA (2009) A model of encoding and decoding in V1 and MT accounts for motion perception anisotropies in the human visual system. *Brain Research* 1299:3-16.

Silver MA, Kastner S (2009) Topographic maps in human frontal and parietal cortex. *Trends in Cognitive Sciences* 13:488-495.

Yoon JH, Rokem AS, Silver MA, Minzenberg MJ, Ursu S, Ragland JD, Carter CS (2009) Diminished orientation-specific surround suppression of visual processing in schizophrenia. *Schizophrenia Bulletin* 35:1078-1084.

Bressler DW, Silver MA (2010) Spatial attention improves reliability of fMRI retinotopic mapping signals in occipital and parietal cortex. *Neuroimage* 53:526-533.

Rokem A, Landau AN, Garg D, Prinzmetal W, Silver MA (2010) Cholinergic enhancement increases the effects of voluntary attention but does not affect involuntary attention. *Neuropsychopharmacology* 35:2538-2544.

Rokem A, Silver MA (2010) Cholinergic enhancement augments magnitude and specificity of visual perceptual learning in healthy humans. *Current Biology* 20:1723-1728.

Yoon JH, Maddock RJ, Rokem A, Silver MA, Minzenberg MJ, Ragland JD, Carter CS (2010) GABA concentration is reduced in visual cortex in schizophrenia and correlates with orientation-specific surround suppression. *Journal of Neuroscience* 30:3777-3781.

Denison RN, Piazza E, Silver MA (2011) Predictive context influences perceptual selection during binocular rivalry. *Frontiers in Human Neuroscience* 5:166.

Rokem A, Yoon JH, Ooms RE, Maddock RJ, Minzenberg MJ, Silver MA (2011) Broader visual orientation tuning in patients with schizophrenia. *Frontiers in Human Neuroscience* 5:127.

Denison RN, Silver MA (2012) Distinct contributions of the magnocellular and parvocellular visual streams to perceptual selection. *Journal of Cognitive Neuroscience* 24:246-259.

Fortenbaugh FC, Sanghvi S, Silver MA, Robertson LC (2012) Exploring the edges of visual space: the influence of visual boundaries on peripheral localization. *Journal of Vision* 12(2):19:1-18.

Kosovicheva AA, Sheremata SL, Rokem A, Landau AN, Silver MA (2012) Cholinergic enhancement reduces orientation-specific surround suppression but not visual crowding. *Frontiers in Behavioral Neuroscience* 6:61.

Rokem A, Landau AN, Prinzmetal W, Wallace DL, Silver MA, D'Esposito M (2012) Modulation of inhibition of return by the dopamine D2 receptor agonist bromocriptine depends on individual DAT1 genotype. *Cerebral Cortex* 22:1133-1138.

Bressler DW, Fortenbaugh FC, Robertson LC, Silver MA (2013) Visual spatial attention enhances the amplitude of positive and negative fMRI responses to visual stimulation in an eccentricity-dependent manner. *Vision Research* 85:104-112.

Gratton C, Sreenivasan KK, Silver MA, D'Esposito M (2013) Attention selectively modifies the representation of individual faces in the human brain. *Journal of Neuroscience* 33:6979-6989.

Piazza EA, Sweeny TD, Wessel D, Silver MA, Whitney D (2013) Humans use summary statistics to perceive auditory sequences. *Psychological Science* 24:1389-1397.

Rokem A, Silver MA (2013) The benefits of cholinergic enhancement during perceptual learning are long-lasting. *Frontiers in Computational Neuroscience* 7:66.

Yoon JH, Sheremata S, Rokem A, Silver MA (2013) Windows to the soul: vision science as a tool for studying biological mechanisms of information processing deficits in schizophrenia. *Frontiers in Psychology* 4:681.

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