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EDUCATION and POSITIONS

9/15 – present	**Oregon Health Sciences University**	Portland, OR
	Professor in Division of Neuroscience, Oregon National Primate Research Center (ONPRC)	
	Professor in Department of Behavioral Neuroscience, OHSU	
4/13 – present	**Zhejiang University**	Hangzhou, China
	Director and Professor of Zhejiang University Interdisciplinary Institute of Neuroscience and Technology (ZIINT), Qiushi Academy of Advanced Science	
	co-Director of Zhejiang University-Siemens Joint Brain Imaging Research Center	
	Director of Neuroengineering Consortium	
	Professor of Biomedical Engineering	
	Professor of Neuroscience at Zhejiang University School of Medicine	
	Professor of Clinical Neuroscience at Zhejiang University Second Hospital	
7/10 – 8/15	Vanderbilt University	Nashville, TN
	Professor in Department of Psychology	
	Professor in Dept of Radiology (secondary appointment).	
	Professor in Biomedical Engineering (secondary appointment).	
	Fellow of Vanderbilt Unversity Institute of Imaging Sciences	
2/12 – 7/12	Institute of Neuroscience, Chinese Academy of Sciences	Shanghai, China
	Visiting Scholar (sabbatical)	
9/03 – 6/10	Vanderbilt University	Nashville, TN
	Associate Professor (tenured) in Department of Psychology.	
	Associate Prof in Dept of Radiology (secondary appointment).	
	Associate Prof in Biomedical Engineering (secondary appointment).	
7/02 – 8/03	Yale University School of Medicine	New Haven, CT
	Associate Professor (tenure track) in Department of Neurobiology.	
9/96 – 6/02	Yale University School of Medicine	New Haven, CT
	Assistant Professor (tenure track) in Section of Neurobiology.	
3/96 - 8/96	University of Queensland	Brisbane, Australia
	Visiting Scholar at Vision Touch & Hearing Research Center.	
7/95 - 2/96	Baylor College of Medicine	Houston, TX
	Research Assistant Professor (non-tenure track) in Division of Neuroscience.	
12/92 - 6/95	Baylor College of Medicine	Houston, TX
	Post-doctoral fellow in Division of Neuroscience under Dr. Daniel Y. Ts'o.	
6/91 - 11/92	Rockefeller University	New York, NY
	Post-doctoral fellow in Dept. of Neurobiology under Dr. Daniel Y. Ts'o & Torsten Wiesel.	
9/86 – 5/91	M.I.T.	Cambridge, MA
	Ph.D. program in Dept. of Brain and Cognitive Sciences. (Thesis under Dr. Mriganka Sur)	
9/85 – 8/86	Yale University	New Haven, CT
	Doctoral program in Section in Neuroanatomy (lab moved to MIT).	

9/84 – 6/85 Harvard University Boston, MA
Doctoral program in Program in Neuroscience (transferred to Yale).
9/79 – 6/84 Harvard University Cambridge, MA
B.A. *cum laude* 1984. Biochemistry major with special field of interest in neurobiology.

PUBLICATIONS

PEER-REVIEWED PUBLICATIONS

Hu J, Song XM, **Roe AW** (2019) Curvature domains in V4 of Macaque Monkey. bioRxiv. Posted Feb 28, 2020.

Zhang Y, Yang F, Yang SS, Li P, Edathodathil A, Xi W, **Roe AW*,** Li P* (2020) INS-fOCT: a label-free, all-optical method for simultaneously manipulating and mapping brain function. Neurophotonics. 7(1):015014. doi: 10.1117/1.NPh.7.1.015014.

Friedman RM*, Morone K, Gharbawie OA, **Roe AW*** (2020) Mapping mesoscale cortical connectivity in monkey sensorimotor cortex with optical imaging and microstimulation. J Comp Neurol. 2020;1–13. doi:10.1002/cne.24918.

Zaraza D, Chernov MM, **Friedman RM**, Yang Y, Rogers JA, **Roe AW** (2020) Going wireless: an optical imaging and optogenetics system for use in awake behaving primates. Proc. SPIE 11227, Optogenetics and Optical Manipulation, 1122705 (20 February 2020); https://doi.org/10.1117/12.2546289

Cai ZC, Zhu L, Wang MQ, **Roe AW***, Xi W*, Qian J* (2020) NIR-II fluorescence microscopic imaging in non-human primates. Theranostics. 10(9):4265-4276. doi:10.7150/thno.43533. [PMC: 7086344] [PMID: 32226552]

Quan QY, Gao Y, Qu SX, Wang XJ, Friedman RM, Chernov M, Kroenke C, **Roe AW**, Zhang XT (2020) A 16-Channel Loop Array for in vivo Macaque Multi-modal Neuroimaging at 3T MRI. MRI. 68:167-172. [PMID: 32081631]

Tremblay…**Roe AW**… et al (2020) An Open Resource for Non-Human Primate Optogenetics. Neuron, *in press*.

Milham MP*, Petkov CI*, Margulies DS, Schroeder CE, …, **Roe AW**, … (2020) Accelerating the evolution of nonhuman primate neuroimaging: The PRIMatE Data Exchange (PRIME-DE) Global Collaboration Workshop & Consortium. Neuron. 105(4):600-603. https://doi.org/10.1016/j.neuron.2019.12.023 [PMID: 32078795]

Mekbib DW, Han JW, Zhang L, Fang S, Jiang HJ, Zhu JM, **Roe AW**, Xu DR (2020) Virtual reality therapy for upper limb rehabilitation in patients with stroke: a meta-analysis of randomized clinical trials. Brain Injury. 17:1-10. [PMID: 32064964]

Gao Y, Mareyam A, Sun Y, Witzel T, Arango N, Kuang I, White J, **Roe AW**, Wald L, Stockmann J*, Zhang XT* (2020) A 16-Channel AC/DC array coil for anesthetized monkey whole-brain imaging at 7T. Neuroimage. 207:116396. [PMID: 31778818]

Roe AW (2019) Columnar connectome: towards a mathematics of brain function. Network Neuroscience 3(3):779-791. April 22, 2019. https://doi.org/10.1162/netn_a_00088 . [PMC: 6663318][PMID: 31410379]

Li M**, Song XM**, Xu T, Hu D*, **Roe AW***, Li C-Y* (2019) Subdomains within orientation columns of primary visual cortex Science Advances, 5:eaaw0807. doi: 10.1126/sciadv.aaw0807. [**co-first author, *co-corresponding] [PMC: 6551190][PMID: 31183405]

Xu AG**, Qian M**, Tian F, Xu B, Friedman RM, Wang J, Song X, Sun Y, Chernov MM, Cayce JM, Jansen ED, Mahadevan-Jansen A, Zhang XT*, Chen G*, **Roe AW*** (2019) Focal infrared neural stimulation with high-field functional MRI: a rapid way to map mesoscale brain connections. Science Advances, 5(4):eaau7046 DOI: 10.1126/sciadv.aau7046. [PMC: 6482007][PMID: 31032400]

Chernov M, Friedman RM, Chen G, **Roe AW** (2018) Functionally specific optogenetic modulation in primate visual cortex. Proc Natl Acad Sci. 115(41):10505-10510. [PMC6187135] [PMID: 30257948]

Pálfi E, Zalányi L, Ashaber M, Palmer C, Kántor O, **Roe AW**, Friedman RM, Négyessy L (2018) Connectivity of neuronal populations within and between areas of primate somatosensory cortex. Brain Struct Funct. 223(6):2949-2971. [PMID: 29725759]

Yin H, Fu P, Lu HD, Tanigawa H, **Roe AW**, Chen G (2018) Reply to Doi et al.: Functional architecture matters in the formation of perception. Proc Natl Acad Sci. 115(30):E6969-E6971. [PMC: 6065029] [PMID: 29980648]

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Wang YL, Han X, Xi W, Li JY, **Roe AW**, Lu P, Qian J (2017) Bright AIE nanoparticles with F127 encapsulation for deep-tissue three-photon intravital brain angiography. Adv. Healthcare Mater. 6(21):1700685. [PMID 28795507] [doi: 10.1002/adhm.201700685]

Morone KA, Neimat J, **Roe AW,** Friedman RM (2017) Functional and clinical relevance of intrinsic signal optical imaging in human brain mapping. Neurophotonics, 4(3):031220. [PMC5466092] [PMID: 28630881]

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Tanigawa H, Chen G, **Roe AW** (2016) Spatial distribution of attentional modulation at columnar resolution in macaque area V4. Frontiers in Neural Circuits, 10:1-13. [PMC5149540][PMID: 28018181]

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Pálfi E, Ashaber M, Palmer C, Friedman RM, **Roe AW**, Négyessy L (2016) Neuronal connections within the hand representation in areas 3b and 1 of the somatosensory cortex in primates. Orv Hetil. 157(33):1320-1325. Hungarian. [PMID: 27523315]

Chernov M, Chen G, Luke A. Torre-Healy, Friedman RM, **Roe AW** (2016) Microelectrode array stimulation combined with intrinsic optical imaging: a novel tool for functional brain mapping. J Neurosci Meth, 263:7-14. [PMID: 26820903][PMC: 4801717]

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Wang Z, Negyessy L, Chen LM, Friedman RM, John Gore, **Roe AW** (2013) The relationship of anatomical and functional connectivity to resting state connectivity in primate somatosensory cortex. Neuron, 78(6):1116-26. [PMID: 23791200][PMC3723346]

Commentary: Sporns O, Honey CJ (2013) Topographic dynamics in the resting brain. Neuron 78:1116-1126

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Lustig B, Winberry J, Friedman R, Giber K, **Roe AW** (2013) Voltage sensitive dye imaging reveals shifting spatiotemporal spread of whisker-induced activity in rat barrel cortex. J Neurophysiol, 109:2382-2392. [PMID: 23390314][PMC 3652220]

Chen G, Wang F, Gore, JC, **Roe AW** (2013) Layer-specific BOLD activation in awake monkey V1 revealed by ultra-high spatial resolution functional magnetic resonance imaging. Neuroimage, 64:147-155. [PMID 22960152][PMC3508288]

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Fan RH, Baldwin MKL, Jermakowicz WJ, Casagrande VA, Kaas JH, **Roe AW** (2012) Intrinsic signal optical imaging evidence for dorsal V3 in the prosimian galago (*Otolemur garnetti*). J Comp Neurol, 520(18):4254-74. [PMID 22628051] [NIHMSID 448275][PMC3593310]

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Chen G, Wang F, Gore, JC, **Roe AW** (2012) Identification of cortical lamination in awake monkeys by high resolution magnetic resonance imaging. Neuroimage. 59(4):3441-9. [PMID: 2208015][PMC3288753]

Wang Z, **Roe AW** (2011) Columnar specificity of microvascular oxygenation and blood flow response in primary visual cortex: evaluation by local field potential and spiking activity. J Cereb Blood Flow & Metab. 32(1):6-16 [PMID: 22027939][PMC3323306]

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Mahadevan-Jansen A, Cayce JM, Friedman R, **Roe AW**, Konrad PE, Hillman E, Jansen E. (2010) Imaging optically induced neural activity in the brain. Conf Proc IEEE Eng Med Biol Soc. 1:3379-81. [PMID: 21097240][PMC3732797] 16

Tanigawa H, Lu HD, **Roe AW** (2010) Functional organization for color and orientation in macaque V4. Nature Neurosci, 13(12):1542-8. [PMID: 21076422][PMC3005205]

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Hung CP, Ramsden BM, **Roe AW** (2010) Inherent biases in spontaneous cortical dynamics. Neuronal Variability and Its Functional Significance (Ding M, Glanzman HD, eds). Oxford Univ Press.

Kaskan PM, Dillenburger BC, Lu HD, **Roe AW**, Kaas JH (2010) Orientation and direction-of-motion response in the middle temporal visual area (MT) of New World owl monkeys as revealed by intrinsic-signal optical, Frontiers in Neuroanatomy, 4:23, pp 1-12. [PMID: 20661299][PMC2906256]

Dillenburger BC, **Roe AW** (2010) Influence of parallel and orthogonal real lines on illusory contour perception. J Neurophysiol, 103:55-64. [PMID: 19864444][PMC2807237]

Chen LM, Friedman RM, **Roe AW** (2009) Optical imaging of digit topography in individual awake and anesthetized squirrel monkeys. Exp Brain Res, 196:393-401. [PMID: 19484466][PM C3786732]

Chen LM, Friedman RM, **Roe AW** (2009) Area-specific representation of mechanical nociceptive stimuli within SI cortex of squirrel monkeys. Pain, 141(3):258-68. [PMID: 19136211][PMC2680084]

Lu HD*, Chen G*, Ts'o DY, **Roe AW** (2009) A rapid topographic mapping and eye alignment method using optical imaging in Macaque visual cortex. Neuroimage, 44:636-46. *equal contributions. [PMID: 19013530][PMC2674020]

Roe AW (2009) Imaging working memory in prefrontal cortex of macaque monkeys. Imaging the Brain with Optical Methods (Roe AW, ed). Springer, New York.

Kaskan PM, Lu HD, Dillenburger BC, Kaas JH, **Roe AW** (2008) The organization of orientation-selective, luminance-change and binocular-preference domains in the second (V2) and third (V3) visual areas of New World owl monkeys as revealed by intrinsic-signal optical imaging. Cereb Cortex, 19(6):1394-407. [PMID: 18842661][PMC2677652]

Chen LM, Friedman RM, **Roe AW** (2008) Optical imaging of nociception in primary somatosensory cortex of non-human primates. Sheng Li Xue Bao 60(5):664-8. [PMID: 18958375]

Friedman RM, Chen LM, **Roe AW** (2008) Responses of areas 3b and 1 in anesthetized squirrel monkeys to single and dual site stimulation of the digits. J Neurophysiol, 100(6):3185-96. [PMID: 18922955][PMC2604853]

Roe AW (2008) Optical imaging of visual feature representation in the awake, fixating monkey. In Advances in Cognitive Neurodynamics ICCN 2007: Proceedings of the International Conference on Cognitive Neurodynamics 2007. (Eds: Rubin Wang, Fanji Gu and Enhua Shen). Springer, New York. ISBN: 978-1-4020-8386-0.

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Chen LM, Turner G, Friedman RM, Gore JC, **Roe AW**, Avison MJ (2007) High resolution maps of real and illusory tactile activation in SI: intra-individual correlation with fMRI, optical imaging and electrophysiology. J Neurosci, 27(34):9181-9191. [PMID: 17715354]

Hung CP, Ramsden RM, **Roe AW** (2007) A functional circuitry for edge-induced brightness perception. Nature Neurosci, 10:1185-1190. [PMID: 17704775] 18
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Commentary: Eysel UT (2003) llusions and perceived images in the primate brain. Science 31:789-791.
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Sur M, Garraghty PE, **Roe AW** (1988) Experimentally induced projections into auditory thalamus and cortex. Science 242:1437-1441. [PMID: 2462279]

White WF, Regan LJ, **Roe AW**, Messer A (1987) Behavior, genetics, and biochemistry of an allele of the mutant mouse spastic Spa^{ALB}. J Neurogenetics 4(5):253-258. [PMID: 3668730] 13

REVIEW ARTICLES, BOOK CHAPTERS, AND BOOKS (13)

Devor A, **Roe AW**, Mahadevan-Jansen, Boas DA (2014) The BRAIN Initiative. Neurophotonics.1(1):011001. Editorial. [PMID: 26157962] [PMC4489344]

Roe AW, Chelazzi L, Connor CE, Conway BR, Fujita I, Gallant J, Lu H, Vanduffel W (2012) Towards a unified theory of visual area V4. Neuron, 74(2):12-29. [PMID: 22500626][PMC2376798]

Roe AW (2009) Imaging the Brain with Optical Methods (Roe AW, ed). Springer, New York.

Roe AW, Chen G, Lu HD (2009) Visual System: Functional architecture of Area V2. In: Squire LR (ed.) Encyclopedia of Neuroscience, Vol 10, pp. 331-349. Oxford: Academic Press.

Roe AW, Parker AJ, Born RT, DeAngelis GC (2007) Disparity channels in early vision: a mini-review. J Neurosci, 27:11820-11831. *Cover figure*. [PMID: 17978018][PMC2376798]

Roe AW, Chen LM, Friedman RM (2007) Intrinsic signal imaging of somatosensory function in non-human primates. The Senses: A Comprehensive Reference, Vol 6: Somatosensation (Eds Allan Basbaum et al). Elsevier, Oxford, UK. (ISBN: 9780126394825)
http://www1.elsevier.com/homepage/about/mrwd/snse/table_of_contents.htm

Roe AW, Friedman RM, Chen LM (2007) Multiple Representation in Primate SI: A View From A Window on the Brain. In Handbook of Neurochemistry and Molecular Neurobiology: Sensory Neurochemistry, Vol 26 (Johnson D, Lajtha A, eds). Springer, New York NY, pp. 1-16.

Roe AW (2004) Long-term optical imaging of intrinsic signals in anesthetized and awake monkeys. In: Visualizing large-scale patterns of activity in the brain: optical and electrical signals. (Buzsaki G ed) pp 34-42. Washington DC: Society for Neuroscience.

Roe AW (2003) Modular complexity of Area V2 in the Macaque monkey. In The Primate Visual System (Collins C, Kaas J, eds.). CRC Press, New York NY, pp 109-138.

Roe AW, Ts'o DY (1997) The functional architecture of Area V2 in the Macaque monkey. In Cerebral Cortex, Vol. 12: Extrastriate Cortex in Primates (Rockland K, Kaas JH, Peters A, eds.). Plenum Press, New York, pp. 295-333.

Ts'o DY, **Roe AW** (1995) Functional compartments in visual cortex: segregation and interactions. In The Cognitive Neurosciences (Gazzaniga MS, ed.). M.I.T. Press, Cambridge, MA, pp. 325-337.

Ts'o DY, **Roe AW** (1994) The organization and connectivity of color processing in visual cortex. Symposium for Otto Creutzfeldt. Springer-Verlag (Nothdruft C., ed.).

Sur M, Pallas SL, **Roe AW** (1990) Cross-modal plasticity in cortical development: differentiation and specification of sensory neocortex. Trends in Neurosci 13:227-233. [PMID: 1694329]

NEWS

O'meara S (2015) At the very heart of progress. Nature. 2015 Dec 17; 528(7582):S179-81. doi: 10.1038/528S179a. Includes interview with Anna Wang Roe regarding science progress at Zhejiang University in Hangzhou, China.

CONFERENCE & SYMPOSIUM ORGANIZER

CONFERENCE ORGANIZER

Roe AW (2020) Conference organizer. Gordon Research Conference on Neuroplasticity of Sensory Systems. June 7-12, 2020. Hong Kong [cancelled due to coronavirus]

Roe AW (2018) Conference organizer. Asia-Pacific Conference on Vision. July 13-16, 2018. Hangzhou, China.

Roe AW (2018) Conference organizer. Gordon Research Conference on Neuroplasticity of Sensory Systems. June 3-8, 2018. Hong Kong

Roe AW (2017) Conference organizer. Frontiers in Neuroscience & Technology 2017: Sensation & Emotions. Oct 28-Nov 3, 2017. Hangzhou, China.

Roe AW (2017) Retreat organizer. ZIINT Annual Retreat. Sept 21-22, 2017. Hangzhou, China.

Roe AW (2017) Conference organizer. Asia-Pacific Workshop on Advances in UHF MRI. May 2-3, 2017. Hangzhou, China.

Roe AW (2016) Conferennce organizer. West Lake Ultrahigh Field Conference. Dec 10, 2016. Hangzhou, China.

Roe AW (2016) Conference organizer. Frontiers in Neuroscience and Technology 2016: Audition. Sept 24-25, 2016. Hangzhou, China.

Roe AW (2015) Conference organizer. Frontiers in Neuroscience and Technology 2015. Hangzhou, China.

SYMPOSIUM ORGANIZER

Roe AW (2020) Program organizer: Neurophotonics. SPIE Photonics West, San Francisco CA.

Roe AW (2019) Co-organizer. Neuroimaging Techniques: from a single cell to the whole brain. 2019 CNS Meeting, Suzhou, China.

Roe AW (2019) Co-organizer. 2019 Annual ONPRC Scientific Symposium. ONPRC, OHSU. Beaverton, OR.

Roe AW (2018) Panelist. The Marmoset Social. Soc Neurosci Meeting. San Diego CA.

Roe AW (2018) Symposium organizer. Asia Communications and Photonics Conference (ACP). Oct 26-29, 2018. Hangzhou, China.

Roe AW (2018) Symposium organizer. Multisensory processing. Asia-Pacific Conference on Vision. July 13-16, 2018. Hangzhou, China.

Roe AW (2018) Symposium organizer. Binocular depth perception. Asia-Pacific Conference on Vision. July 13-16, 2018. Hangzhou, China.

Roe AW (2016) Symposium organizer on Primate Cognition. EMBO Conference 2016. Taipei, Taiwan.

Roe AW (2015) Program organizer: Neurophotonics. SPIE Photonics West, San Francisco CA.

Roe AW (2014) Program organizer: Neurophotonics. SPIE Photonics West, San Francisco CA.

Roe AW, Usuda Adachi, Wim Vanduffel, Bas Neggers (2013) Chair and organizer: Resting state connectivity: views from nonhuman primates. Organization for Human Brain Mapping, Seattle, WA.

Roe AW (2012) Chair and organizer: Primate optogenetics nanosymposium. Soc Neurosci Meeting, New Orleans, LA.

Roe AW (2011) Chair and organizer: Spatiotemporal profiles of cortical processing: a view from optical imaging studies in awake, behaving nonhuman primates, International Brain Research Organization Meeting, Florence, Italy.

Roe AW (2010) Symposium organizer. Symposium on Visual Function and Neuroimage/fMRI. Fourth Shanghai International Conference on Biophysics and Molecular Biology. Shanghai, China.

Roe AW (symposium organizer), Romo R, Hsiao S, Kaas J (2010) The power of touch. Current Issues In Developmental Psychobiology Manzaillo, Mexico.

Roe AW (2009) 'What is V4?' Nanosymposium organizer. Soc Neurosci Meeting, Chicago, IL.

Shou T, Roe AW (2007) Co-organizer of "Visual cortex: information processing and dynamics". International Conference on Cognitive Neurodynamics, Shanghai, China.

Roe AW (2003) Workshop speaker and organizer. "Columnar Interactions in Neural Computation" Swindale N, Tanifuji M, Hung C, Cohen L. Winter Conference on Brain Research, Snowbird, Utah.

Roe AW (2002) Vision social organizer. 2002 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, 2002. CD-ROM.

Roe AW (2002) Science and Technology Panel. Family Issues Panel. Dinner with Anna Roe. Rennaissance Weekend, Hilton Head, SC.

Roe AW, Wilson M, Garner C, Korte M, Rotter S (2001) Learning and Memory (Organizer). German-American Frontiers of Science Symposium. Frankfurt, Germany.

Roe AW, Schwartz A, Meyer U, Rotter S (2000) Neural Prostheses (Organizer). German-American Frontiers of Science Symposium. Irvine, CA.

Roe AW, Kaas JH, Recanzone GG, Hahm J, Montague PR (1994) (organizer) New views of cerebral cortical topography: discontinuities, non-topographies, and time-varying topographies. Winter Conference on Brain Research, Snowbird, Utah.

INVENTIONS

Patent Serial No. 61/489,522: Method and apparatus of pulsed infrared light for the inhibition of central nervous system neurons

Patent No 201810935858.5: High spatial resolution infrared laser stimulation-fMRI whole brain mapping (pending)

AWARDS and HONORS

2019	Elected Fellow of SPIE
2018	Zhejiang Optical Society Council Member
2018, 2020	Gordon Research Conference Organizer
2017	International Neuropsychological Symposium Member
2017	Elected Senior Member of SPIE
2016	ISMRM Plenary Speaker
2015	AAAS Fellow
2013	1000 Faculty Award, China
1998-2003	David and Lucile Packard Foundation Fellowship
1997-1999	Alfred P. Sloan Research Fellowship.
1996-1999	Whitehall Foundation Research Fellowship
1991-1994	NIH NRSA Post-doctoral Fellowship, Rockefeller Univ and Baylor College of Medicine.
1993	Winter Conference on Brain Research Fellowship Award, Whistler, Canada.
1992	Center for Visual Science Symposium Travel Fellowship, Rochester, NY.
1989-1991	Whittaker Health Sciences Fellowship, M.I.T.
1986-1989	NIGMS Graduate Traineeship, M.I.T.
1987	Gordon Research Conference Scholarship.
1985-1986	NIGMS Graduate Traineeship, Yale University.
1984-1986	NIGMS Graduate Traineeship, Harvard University.

SERVICE

ACADEMIC SERVICE

Grant Reviews

2019	US Brain Initiative grant reviewer
2018	Israel Science Foundation grant reviewer
2018	UK Medical Research Council grant reviewer
2017	Chinese 1000 Talents Faculty Applications reviewer
2011 – 2017	NIH study section, Sensorimotor Integration, member
2009	NIH study section, ad hoc
2006	NIH special review committee
2005	NIH special review committee
2002	NSF Cognitive Neuroscience Study Section, ad hoc
2000-2005	NIH IFCN-8 (COG) Study Section, member

Site Visit Reviews

June 2007	NIH/NIMH Board of Scientific Counselors review committee (ad hoc).
Oct 2006	NIH/NICHHD Site visit member.

Editorships, manuscript & abstract reviews

2019 -	Associate Editor, eLife
2017 -	Advisory Editorial Board, TINS
2016 -	Assoc Editor, Network Neuroscience
2014 - 2015	Special Issue Editor, Visual Neuroscience
2013 – present	Assoc Editor, Neurophotonics
2013 – 2018	Editor, Neuroimage
2012 – present	OHBM abstract review committee
2010 – present	Assoc Editor, Frontiers in Integrative Neuroscience
2007 - present	Editor, Frontiers in Systems Neuroscience
2003 - 2014	Assoc Editor, Neuroscience Letters
2006	Optical Soc America abstract review committee
2003 – 2011	Vision Sciences Society abstract review committee
9/96 – present	Ad hoc reviewer for Nature, Science, Neuron, Nature Neuroscience, eLife, Current Biology, J Neuroscience, J Neurophysiology, Nature NS, Neuroimage, Neurophotonics, Vision Research, PNAS, Frontiers of Neuroscience, J Neurosci Methods, Cerebral Cortex, American J Physiology, European J Neuroscience, BMC Journals, PLOS Biology, Attention Perception & Psychophysics, J Cereb Blood Flow & Metabolism, Neuroscience Letters, Neuroreport, Biomed Optics Express

Other

2020	ISMRM Overseas Chinese Awards Committee
2019-	Univ Marburger – Zhejiang Univ Partnership Ambassador
2019-2022	OHBM Awards Committee
2019	FENS Summer School Lecturer, Bologna, Italy
2018, 2020	Gordon Research Conference Organizer (Hong Kong, China)
2018 -	NIH Marmoset Advisory Committee, ONPRC representative
2019-2021	SFN Swartz Prize Selection Committee
2018 – present	Head of Neuroengineering Consortium, Zhejiang University.
2012 - present	Advisory committee to McGovern Institute at Beijing University, Beijing China.
2011 – present	SFN Peter Gruber International Research Award Selection Committee
2008 - present	Advisory committee to Systems Neuroscience Program at Tsinghua University, Beijing China.
1999-2001	German-American Frontiers of Science Symposia (Organizer and Participant)
2003 - present	Ad hoc reviewer on funding applications and promotion reviews for investigators from Europe, Asia, Australia.

TEACHING

FENS Summer School (June 2-8, 2019, Bologna, Italy)
Brain reading and writing: new perspectives of neurotechology

Zhejiang University, Hangzhou China
Fall 2015 Course director and lecturer. Systems Neuroscience.
Spring 2016 Graduate Student Journal Club.

Other courses:
Visual Neuroscience
Neuroanatomy
Neuroimaging
Systems Neuroscience
Cortical Networks for Behavior