Keith A. Schneider

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Education

PhD Brain & Cognitive Sciences, University of Rochester, Rochester, NY	2002
MA Brain & Cognitive Sciences, University of Rochester, Rochester, NY	2000
MA Astronomy, Boston University, Boston, MA	1996
BS Physics, California Institute of Technology, Pasadena, CA	1994

Positions

Professor, Department of Psychological & Brain Sciences, University of Delaware, Newark, DE	2020–
Director, Center for Biomedical & Brain Imaging, University of Delaware, Newark DE	2016–
Associate Professor, Department of Psychological & Brain Sciences, University of Delaware, Newark, DE	2016–2020
Director, York MRI Facility, York University, Toronto, ON, Canada	2010–2016
Associate Professor, Department of Biology and Centre for Vision Research, York University, Toronto, ON, Canada	2010–2016
Assistant Professor, Department of Psychological Sciences, University of Missouri, Columbia, MO	2009–2010
Assistant Professor (Research), Rochester Center for Brain Imaging and Center for Visual Science, University of Rochester, Rochester, NY	2005–2008
Postdoctoral Fellow, Princeton University, Princeton, NJ	2002–2005
Postdoctoral Fellow, University of Rochester, Rochester, NY	2002

Funding

UDRF Strategic Initiative Award. 2/1/2024–1/31/2026. "The link between subcortex and object-selective cortical regions". $55,000. Co-PI (faculty mentor).

Unidel Foundation. 2023–2024. "Next-generation MRI research facility on STAR Campus". $2,000,000. PI.

NIH COBRE 3P20GM103653. 9/1/2022–8/31/2027. "Renewal of Delaware Center for Neuroscience Research". Co-PI (Core Director).

NIH/NEI 1R01EY028266. 9/30/2018–6/30/2024 (NCE). "Directly testing the magnocellular hypothesis of dyslexia". $1,912,669. PI.

NIH COBRE 2P20GM103653. 9/1/2017–/8/31/2022. "Renewal of Delaware Center for Neuroscience Research". $3,372,118. Co-PI (Core Director).

NVIDIA GPU Grant. 2016. Titan X Pascal hardware. $1200. PI.

NSERC Discovery Grant (Canada). 2012–2016. "Structural and functional imaging of the human thalamus". $135,000. PI.

NSERC CREATE (Canada). 2011–2016. "Vision Science and Applications". $1,650,000. One of nine co-PIs.

The Dana Foundation. 2009–2012. "Directly testing the magnocellular hypothesis of dyslexia with high-resolution functional magnetic resonance imaging of the human lateral geniculate nucleus." $200,000. PI.

Invited talks

10/18/2023	University of Washington, Seattle, WA, Human Neuroscience Journal Club
11/25/2022	EU ReDyslexia Consortium
1/4/2019	University of Rochester, Rochester, NY, Institute for Neuroscience seminar
11/9/2018	American Physical Society, University of Maryland, College Park, MD, Physics and Neuroscience
12/6/2017	Princeton University, Princeton, NJ, Cognitive Research Seminar
3/23/2017	Delaware State University, Dover, DE, OSCAR Center seminar series
4/26/2016	Baylor College of Medicine, Houston, TX, Core for Advanced MRI weekly seminar series
5/8/2016	Attention and Conscious Perception, York University, Toronto, ON, Canada (international workshop focused on my attention and perception research)
1/17/2013	Asia Pacific Academy of Ophthalmology, Hyderabad, India, Neuroimaging in Glaucoma
11/14/2012	Queen's University, Kingston, ON, Canada, Neuroscience Seminar Series
7/26/2012	Western University, London, ON, Canada, Brain and Mind Institute
6/9/2012	Queen's University, Kingston, ON, Canada, BBCS Symposium: Visual Attention, Salience and the Brain
5/11/2012	Vision Sciences Society, Naples, FL, Distinguishing perceptual shifts from response biases
6/7/2011	Toronto Western Hospital, Toronto, ON, Canada, Neuroimaging Rounds

6/11/2009	Associated Medical Schools of New York, NY, Advances in Neuroimaging that can Enhance Medical Education
2008?	Rochester Institute of Technology, Rochester, NY
10/5/2007	Bernstein Center for Computational Neuroscience, Humboldt University, Berlin, Germany
2005	University of Pennsylvania, Philadelphia, PA

Journal articles

Trainees are underlined.

Meng Q, **Schneider KA**. In preparation. Impaired responses to high-frequency visual flicker in the magnocellular division of the lateral geniculate nucleus in dyslexia.

Schneider KA, Malik I. In preparation. Variability in the flash-lag illusion.

Schneider KA. In preparation. Entropy of the psychometric function predicts decision confidence. psyarxiv.com/hveac; doi:10.31234/osf.io/hveac

Meng Q, **Schneider KA**. In preparation. Responses to non-linguistic auditory transients in the medial geniculate nucleus are diagnostic for dyslexia. bioRxiv 2022.02.18.481044; doi:10.1101/2022.02.18.481044

Yildirim I, Brockmeier AJ, **Schneider KA**. Under revision. Segregating the eye-specific regions of the human lateral geniculate nucleus using non-negative matrix factorization. *NeuroImage: Reports*.

Yildirim I, Hekmatyar K, **Schneider KA**. Under revision. Evaluating quantitative and functional MRI as potential techniques to identify the subdivisions in the human lateral geniculate nucleus. bioRxiv 2022.11.16.516765; doi:10.1101/2022.11.16.516765

Yildirim I, **Schneider KA**. 2023. Evaluating quantitative and functional MRI as potential techniques to identify the subdivisions in the human lateral geniculate nucleus. *eNeuro*. doi: 10.1523/ENEURO.0470-22.2022

Meng Q, **Schneider KA**. 2022. A specialized channel for encoding auditory transients in the magnocellular division of the human medial geniculate nucleus. *NeuroReport* **33**:663–668. doi:10.1097/WNR.0000000000001830

Schneider KA, Malik I. 2021. A three-response task demonstrates how attention alters decision criteria but not appearance. *Journal of Vision* **21**(5):30, 1–16. doi:10.1167/jov.21.5.30

Schneider KA. 2020. A note on the equality judgment experiment in Itthipuripat, et al. (2019). psyarxiv.com/kbhvg; doi:10.31234/osf.io/kbhvg

DeSimone K, **Schneider KA**. 2019. Distinguishing hemodynamics from function in the human LGN using a temporal response model. *Vision* **3**:27. doi:10.3390/vision3020027

McKetton L, DeSimone K, **Schneider KA**. 2019. Larger auditory cortical area and broader frequency tuning underlie absolute pitch. *Journal of Neuroscience* **39**: 2930–2937. doi:10.1523/JNEUROSCI.1532-18.2019

Schneider KA. 2018. The flash-lag, Fröhlich and related motion illusions are natural consequences of discrete sampling in the visual system. *Frontiers in Psychology: Perception Science* **9**: 1227. doi:10.3389/fpsyg.2018.01227

Giraldo-Chica M, **Schneider KA**. 2018. Hemispheric differences in the orientation and location of the lateral geniculate nucleus in dyslexia. *Dyslexia* **24**: 197–203. doi:10.1002/dys.1580

Beck J, **Schneider KA**. 2017. Attention and mental primer. *Mind & Language* **32**: 463–494. doi:10.1111/mila.12148

Grigorian A, McKetton L, **Schneider KA**. 2016. Reduced connectivity in the primary visual pathway in human albinism. *Journal of Visualized Experiments* **114**: e53759. doi:10.3791/53759

McKetton L, Williams J, Viviano JD, Yücel YH, Gupta N, **Schneider KA**. 2015. High-resolution structural magnetic resonance imaging of the human subcortex *in vivo* and postmortem. *Journal of Visualized Experiments* **106**: e53309. doi:10.3791/53309

DeSimone K, Viviano JD, **Schneider KA**. 2015. Population receptive field estimation reveals new retinotopic maps in the human subcortex. *Journal of Neuroscience* **35**: 9836–9847. doi:10.1523/JNEUROSCI.3840-14.2015

Giraldo-Chica M, Hegarty JP, **Schneider KA**. 2015. Morphological differences in the lateral geniculate nucleus associated with dyslexia. *NeuroImage: Clinical* **7**: 830–836. doi:10.1016/j.nicl.2015.03.011

Viviano JD, **Schneider KA**. 2015. Interhemispheric interactions of the human thalamic reticular nucleus. *Journal of Neuroscience* **35**: 2026–2032. doi:10.1523/JNEUROSCI.2623-14.2015

McKetton L, Kelly KR, **Schneider KA**. 2014. Abnormal lateral geniculate nucleus and optic chiasm in human albinism. *Journal of Comparative Neurology* **522**: 2680–2687. doi:10.1002/cne.23565

Kelly KR, McKetton L, **Schneider KA**, Gallie BL, Steeves JKE. 2014. Altered anterior visual system development following early monocular enucleation. *NeuroImage: Clinical* **4**: 72–81. doi:10.1016/j.nicl.2013.10.014

Schneider KA. 2011. Attention alters decision criteria but not appearance: A reanalysis of Anton-Erxleben, Abrams & Carrasco (2010) [Invited comment]. *Journal of Vision* **11**(13): 7, 1–8. doi:10.1167/11.13.7

Schneider KA. 2011. Subcortical mechanisms of feature-based attention. *Journal of Neuroscience* **31**: 8643–8653. doi:10.1523/JNEUROSCI.6274-10.2011

Schneider KA, Kastner S. 2009. The effects of sustained spatial attention in the human lateral geniculate nucleus and superior colliculus. *Journal of Neuroscience* **29**: 1784–1795. doi:10.1523/JNEUROSCI.4452-08.2009

Schneider KA, <u>Komlos M</u>. 2008. Attention biases decisions but does not alter appearance. *Journal of Vision* **8**(15): 3, 1–10. doi:10.1167/8.6.1094

Gu T, Kennedy SD, Chen Z, **Schneider KA**, Zhong J. 2007. Functional MRI at 3T using intermolecular double quantum coherence (iDQC) with spin-echo (SE) acquisitions. *Magnetic Resonance Materials in Physics, Biology and Medicine* **20**: 255–264. doi:10.1007/s10334-007-0093-z

Kastner S, DeSimone K, Konen CS, Szczepanski SM, Weiner KS, **Schneider KA**. 2007. Topographic maps in human frontal cortex revealed in memory-guided saccade and spatial working-memory tasks. *Journal of Neurophysiology* **97**: 3494–3507. doi:10.1152/jn.00010.2007

Schneider KA. 2006. Does attention alter appearance? *Perception & Psychophysics* **68:** 800–814. doi:10.3758/BF03193703

Wunderlich K, **Schneider KA**, Kastner S. 2005. Neural correlates of binocular rivalry in the human lateral geniculate nucleus. *Nature Neuroscience* **8**: 1595–1602. doi:10.1038/nn1554

Schneider KA, Kastner S. 2005. Visual responses of the human superior colliculus: A high-resolution fMRI study. *Journal of Neurophysiology* **94**: 2491–2503. doi:10.1152/jn.00288.2005

Schneider KA, Richter MC, Kastner S. 2004. Retinotopic organization and functional subdivisions of the human lateral geniculate nucleus: A high-resolution functional magnetic resonance imaging study. *Journal of Neuroscience* **24**: 8975–8985. doi:10.1523/JNEUROSCI.2413-04.2004

Schneider KA, Bavelier D. 2003. Components of visual prior entry. *Cognitive Psychology* **47**: 333–366. doi:0.1016/S0010-0285(03)00035-5

Bavelier D, **Schneider KA**, Monacelli T. 2002. Reflexive gaze orienting induces the line-motion illusion. *Vision Research* **42**: 2817–2827. doi:10.1016/S0042-6989(02)00335-8

Chapters

Kastner S, Saalmann Y, **Schneider KA**. 2012. Thalamic control of visual attention. In G. Mangun (ed.), *Neuroscience of Attention: Attentional Control and Selection*. Oxford University Press.

Kastner S, **Schneider KA**, Wunderlich K. 2006. Beyond a relay nucleus: Neuroimaging views on the human LGN. *Progress in Brain Research* **155**: 125–143. doi:10.1016/S0079-6123(06)55008-3

Kastner S, **Schneider KA**, O'Connor DH. 2005. Attentional modulation in the human LGN and pulvinar. In L. Itti, G. Rees, J. Tsotsos (eds.), *Neurobiology of attention*. Academic Press.

Conference abstracts

Mukahirwa J, Meng Q, **Schneider KA**. 2024. Decoding differences between neural responses to sustained and transient auditory stimuli in dyslexia. Organization for Human Brain Mapping.

Lisech A, Yuan X, **Schneider KA**. 2024. Parsing Pulses: Testing the Limits of Temporal Phase Perception in Human Vision. Vision Sciences Society.

Mukahirwa J, Meng Q, **Schneider KA**. 2024. Discriminating cortical responses to different visual flicker frequencies in dyslexia. Vision Sciences Society.

Schneider KA. 2024. Deriving the functional form to fit confidence ratings in psychophysical experiments. Vision Sciences Society.

Schneider KA. 2024. Decision confidence is reflected in the entropy of the psychometric function. 48th Annual Interdisciplinary Conference.

Yildirim I, Hekmatyar K, **Schneider KA.** 2023. Segmenting the magnocellular regions in the human lateral and medial geniculate nuclei using quantitative MRI. *Journal of Vision* **23**:5639. doi:10.1167/jov.23.9.5639

Schneider KA, Meng Q. 2023. Responses to non-linguistic auditory transients in the medial geniculate nucleus are diagnostic for dyslexia in individual subjects. *Journal of Vision* **23**:5763. doi:10.1167/jov.23.9.5763

Yildirim I, Hekmatyar K, **Schneider KA.** 2022. Identifying the layers in the human lateral geniculate nucleus using quantitative and functional MRI. *Journal of Vision* **22**(14):3238. doi:10.1167/jov.22.14.3238

Yildirim I, Hekmatyar K, **Schneider KA.** 2021. Identifying the layers in the human LGN using quantitative and functional MRI. Society for Neuroscience.

Yildirim I, **Schneider KA.** 2020. Cortical and subcortical dynamics during binocular rivalry. *Journal of Vision* **20**(11): 789. doi:10.1167/20.11.789

Mugruza-Vassallo CA, **Schneider KA.** 2020. Rhyme and rhythm modulation in dyslexia. BrainBox Conference.

Schneider KA. 2018. Modeling the spatial and temporal responses of the human thalamus. Annual meeting of the Mid-Atlantic Section of the American Physical Society (invited talk).

DeSimone K, **Schneider KA**. 2018. Segmenting the human LGN using a temporal response model. OSA Fall Vision Meeting.

Schneider KA. 2018. Segmenting the human LGN using a temporal response model. 43rd Annual Interdisciplinary Conference.

McKetton L, **Schneider KA**. 2017. Auditory processing in absolute pitch possessors. Mechanics of Hearing. AIP Conference Proceedings **1965**: 070004 (2018). doi:10.1063/1.5038484

DeSimone K, **Schneider KA**. 2017. Model-based functional segmentation of the human lateral geniculate nucleus. *Journal of Vision* **17**(10): 584. doi:10.1167/17.10.584

Schneider KA. 2017. Imaging the human thalamic reticular nucleus. 42nd Annual Interdisciplinary Conference.

Grigorian A, McKetton L, **Schneider KA**. 2016. Abnormal visual system connectivity in human albinism. *Journal of Vision* **16**(12): 772. doi:10.1167/16.12.772

McKetton L, DeSimone K, **Schneider KA**. 2016. Population receptive field mapping and tractography in people with absolute pitch. *Journal of Vision* **16**(12): 473. doi:10.1167/16.12.473

McKetton L, DeSimone K, **Schneider KA**. 2016. Population receptive field mapping of the auditory cortex and subcortex in people with absolute pitch. Association for Research in Otolaryngology.

Schneider KA. 2016. Revisiting the discrete perception hypothesis. 41st Annual Interdisciplinary Conference.

McKetton L, DeSimone K, **Schneider KA**. 2015. Auditory processing of the cortex and subcortex in humans as revealed with functional magnetic resonance imaging. York University Biology Day.

DeSimone K, **Schneider KA**. 2015. Estimating the response properties of the human lateral geniculate nucleus using a spatiotemporal population receptive field model. Society for Neuroscience.

DeSimone K, **Schneider KA**. 2015. Estimating the response properties of subcortical nuclei using visual flicker. York University Centre for Vision Research Conference.

DeSimone K, **Schneider KA**. 2015. Using visual flicker to modulate the response of subcortical nuclei. Human Brain Mapping.

Giraldo-Chica M, **Schneider KA**. 2015. Differences in the anatomical connectivity patterns of the lateral geniculate nucleus between subjects with dyslexia and controls. *Journal of Vision* **15**(12): 640. doi:10.1167/15.12.640

Schneider KA. 2015. Quantized time perception and illusions of motion. 40th Annual Interdisciplinary Conference.

DeSimone K, **Schneider KA**. 2014. Using visual flicker to estimate the temporal response profile in human subcortical nuclei. Society for Neuroscience.

Grigorian A, McKetton L, **Schneider KA**. 2014. Abnormal brain connectivity in the primary visual pathway in human albinism. Society for Neuroscience.

McKetton L, DeSimone K, **Schneider KA**. 2014. Auditory processing of the cortex and subcortex in humans as revealed with functional magnetic resonance imaging. Society for Neuroscience.

Chica MG, **Schneider KA**. 2013. Hemispheric differences in the anatomical connectivity of the human lateral geniculate nucleus. Society for Neuroscience.

DeSimone K, Viviano JD, **Schneider KA**. 2013. Population receptive field estimation in the human subcortical nuclei. Society for Neuroscience.

McKetton L, Gupta N, Yücel Y, **Schneider KA**. 2013. Resolving the layers of the lateral geniculate nucleus using high-resolution magnetic resonance imaging of a postmortem brain. Society for Neuroscience.

Viviano JD, **Schneider KA**. 2013. Imaging the human visual thalamic reticular nucleus. Society for Neuroscience.

DeSimone K, **Schneider KA**. 2013. Population receptive field estimation in the human lateral geniculate nucleus. York University Centre for Vision Research Conference.

Giraldo M, **Schneider KA**. 2013. Hemispheric differences in the human lateral geniculate nucleus. York University Centre for Vision Research Conference.

McKetton L, **Schneider KA**. 2013. Abnormal visual system development and morphology in human albinism. York University Centre for Vision Research Conference.

Munro S, Hegarty JP, **Schneider KA**. 2013. The effects of dyslexia on the spatial and feature-based attentional modulation in the human subcortical visual nuclei. York University Centre for Vision Research Conference.

Soh DW, **Schneider KA**. 2013. Functionally imaging the magno- and parvocellular layers of the human LGN during binocular rivalry. York University Centre for Vision Research Conference.

Viviano JD, **Schneider KA**. 2013. Tremotopic mapping of the human thalamic reticular nucleus. York University Centre for Vision Research Conference.

DeSimone K, Viviano J, **Schneider KA**. 2013. Population receptive field estimation in the human lateral geniculate nucleus. Human Brain Mapping.

Chouinard PA, McLean AA, Sperandio I, Viviano J, **Schneider KA**, Goodale MA. 2013. Magnocellular and parvocellular fMRI activation in separate subdivisions of the human lateral geniculate nucleus. Canadian Neuroscience Meeting.

DeSimone K, **Schneider KA**. 2013. Reconstructing visual stimuli using population receptive field estimates. Canadian Neuroscience Meeting.

Kelly KR, McKetton L, **Schneider KA**, Gallie BL, Steeves JKE. 2013. Morphological changes in anterior visual system development following the loss of one eye early in life. Child Vision Research Society.

McKetton L, **Schneider KA**. 2013. Abnormal visual system development and morphology in human albinism. Child Vision Research Society.

Giraldo M, **Schneider KA**. 2013. Hemispheric differences in the human lateral geniculate nucleus. *Journal of Vision* **13**(9): 24. doi:10.1167/13.9.24

McKetton L, Viviano J, **Schneider KA**. 2013. Resolving the individual layers of the human lateral geniculate nucleus using high-resolution structural MRI. *Journal of Vision* **13**(9): 554. doi:10.1167/13.9.554

Munro S, Hegarty JP, **Schneider KA**. 2013. The effects of dyslexia on the spatial and feature-based attentional modulation in the human subcortical visual nuclei. *Journal of Vision* **13**(9): 149. doi:10.1167/13.9.149

Soh DW, **Schneider KA**. 2013. Functionally imaging the magno- and parvocellular layers of the human LGN during binocular rivalry. *Journal of Vision* **13**(9): 548. doi:10.1167/13.9.548

Giraldo M, **Schneider KA**. 2013. Hemispheric differences in the human lateral geniculate nucleus. Rotman Research Institute 23rd Annual Neuroscience Conference.

Schneider KA. 2013. Attention biases behavior but does not alter appearance. 38th Annual Interdisciplinary Conference.

Schneider KA. 2013. High resolution imaging of the human lateral geniculate nucleus—opportunities and challenges. Asia-Pacific Academy of Ophthalmology Congress.

DeSimone K, **Schneider KA**. 2012. Resolving an occluded stimulus on the human cortical surface using population receptive field estimates. Society for Neuroscience.

Giraldo M, Hegarty JP, **Schneider KA**. 2012. Morphological differences in the lateral geniculate nucleus in dyslexia. Society for Neuroscience.

Kelly KR, McKetton L, **Schneider KA**, Steeves JKE. 2012. Changes in white matter connectivity in the visual system of people with one eye. Society for Neuroscience.

McKetton L, **Schneider KA**. 2012. Abnormal visual system development in human albinism: A comparison of the optic chiasm and lateral geniculate nucleus using high resolution MRI. Society for Neuroscience.

Viviano JD, **Schneider KA**. 2012. Flicker modulation isolates the magnocellular layers of the human lateral geniculate nucleus. Society for Neuroscience.

DeSimone K, **Schneider KA**. 2012. Resolving an occluded stimulus on the human cortical surface using pRF estimates. *Journal of Vision* **12**(9): 752. doi:10.1167/12.9.752

Giraldo M, Hegarty JP, **Schneider KA**. 2012. Reduction of the lateral geniculate nucleus volume in subjects with dyslexia compared to matched controls. *Journal of Vision* **12**(9): 536. doi:10.1167/12.9.536

Kelly KR, **Schneider KA**, Gallie BL, Steeves JKE. 2012. Reduced LGN volume following early monocular deprivation from enucleation. *Journal of Vision* **12**(9): 1359. doi:10.1167/12.9.1359

McKetton L, **Schneider KA**. 2012. Discriminating the eye-specific layers of the human lateral geniculate nucleus using high-resolution fMRI. *Journal of Vision* **12**(9): 212. doi:10.1167/12.9.212

Schneider KA. 2012. Attention increases salience and biases decisions but does not alter appearance. *Journal of Vision* **12**(9): 1388. doi:10.1167/12.9.1388

Viviano JD, DeSimone K, **Schneider KA**. 2012. Intrinsic functional connectivity of the human lateral geniculate nucleus. *Journal of Vision* **12**(9): 382. doi:10.1167/12.9.382

DeSimone K, **Schneider KA**. 2011. Resolving the projection of an occluded moving stimulus on the human cortical surface. Society for Neuroscience.

DeSimone K, **Schneider KA**. 2011. Resolving the projection of a moving stimulus on the human cortical surface. *Journal of Vision* **11**(11): 770. doi:10.1167/11.11.770

Kelly K, DeSimone K, **Schneider KA**, Steeves J. 2011. Cortical thickness of visual areas following early monocular enucleation. *Journal of Vision* **11**(11): 403. doi:10.1167/11.11.403

Shin E, Shin YS, Han S, **Schneider KA**, Saults JS, Sher KJ. 2011. Suppressive effects of alcohol on fMRI BOLD response during face-attractiveness evaluation. Psychophysiology.

Schneider KA. 2010. Subcortical mechanisms of feature-based attention. Cognitive Science Association for Interdisciplinary Learning.

Schneider KA. 2010. Feature-based attention in the human thalamus and superior colliculus. *Journal of Vision* **10**(7): 522. doi:10.1167/10.7.110

Schneider KA. 2009. High-resolution imaging of the human thalamus and superior colliculus during binocular rivalry. *Journal of Vision* **9**(8): 271. doi:10.1167/9.8.271

Schneider KA, Komlos M. 2008. Attention biases decisions but does not alter appearance. *Journal of Vision* **8**(6): 1094. doi:10.1167/8.6.1094

Schneider KA. 2007. Spatial and featural attention in the human lateral geniculate nucleus, superior colliculus and pulvinar. Society for Neuroscience.

Schneider KA, Kastner S. 2007. Sustained spatial attention in the human lateral geniculate nucleus and superior colliculus. *Journal of Vision* **7**(9): 784. doi:10.1167/7.9.784

Schneider KA, Kastner S. 2007. Sustained spatial attention in the human lateral geniculate nucleus and superior colliculus. 32nd Annual Interdisciplinary Conference.

Schneider KA. 2006. Interhemispheric suppression: The case of the missing vertical meridian. *Journal of Vision* **6**(6): 898.

DeSimone K, Weiner K, **Schneider KA**, Kastner S. 2005. Topographic maps in human frontal and parietal cortex: a high-resolution fMRI study. Society for Neuroscience.

Detre GJ, Natu VS, **Schneider KA**, DeSimone K, Kastner S, Norman KA. 2005. Reading out the location being stored in spatial working memory with fMRI: an eye-tracker for your inner eye. Society for Neuroscience.

Kastner S, DeSimone K, Weiner K, **Schneider KA**. 2005. Topographic organization of the spatial attention network. Society for Neuroscience.

Wunderlich K, **Schneider KA**, Kastner S. 2005. Neural correlates of binocular rivalry in the human LGN. Society for Neuroscience.

Wunderlich K, **Schneider KA**, Kastner S. 2005. Neural correlates of binocular rivalry in the human LGN and V1: an fMRI study. European Conference on Visual Perception.

Schneider KA, Kastner S. 2005. The topography of the human lateral geniculate nucleus and superior colliculus as revealed by superresolved fMRI. *Journal of Vision* **5**(8): 370. doi:10.1167/5.8.370

Schneider KA, Kastner S. 2004. Attentional modulation of the human lateral geniculate nucleus and superior colliculus: A high-resolution fMRI study. *Society for Neuroscience Abstracts* **30**: 717.10.

DeSimone KD, **Schneider KA**, Pinsk MA, Norman K, Kastner S. 2004. Response properties of a putative LIP area in human parietal cortex. *Society for Neuroscience Abstracts* **30**: 751.16.

Schneider KA, Richter MC, Kastner S. 2004. Retinotopic organization and functional subdivisions of the human lateral geniculate nucleus and superior colliculus. *Journal of Vision* **4**(8): 284. doi:10.1167/4.8.284

Schneider KA, Engel SA, Fehd HM, Kastner S. 2003. Binocular summation in the human LGN and visual cortex. *NeuroImage* **19**: S64.1517.

Schneider KA, Bavelier D. 2002. Attention and contrast perception. *Society for Neuroscience Abstracts* **28**: 180.18.

Schneider KA, Bavelier D. 2002. Components of visual prior entry. *Journal of Vision* **2**(7): 439. doi:10.1167/2.7.439

Schneider KA, Bavelier D. 2001. Exogenous cueing and visual latency: Attention, response bias or sensory facilitation? *Journal of Vision* **1**(3): 81. doi:10.1167/1.3.81

Schneider KA, Zhong J, Bavelier D. 2000. Human cortical responses to perceived and cancelled motion induced by the line motion illusion. *Investigative Ophthalmology and Vision Science* **41**: **S**796. Abstract nr 4222.

Certifications

Siemens IDEA MRI pulse sequence programming, March 27, 2009

Siemens IDEA MRI image calculation programming, April 2, 2009

Software

DeSimone K, Rokem A, **Schneider KA**. 2016. popeye: a population receptive field estimation tool. *Journal of Open Source Software* **1**: 8. doi:10.21105/joss.00103

Reviews

Funding proposals

Ad hoc panel member, NIH/NEI SPC study section, 10/12/17
DE-INBRE team science supplement (1)
Deutsche Forschungsgemeinschaft (DFG), Germany (2)
Dr Hadwen Trust for Humane Research, UK (1)
Kentucky Science and Engineering Foundation (1)
Medical Research Council (MRC), UK (3)
NIH Small Business Innovation Research (SBIR) award assessment (1)
NIH Brain Initiative (1)
Netherlands Organisation for Scientific Research (NWO) (1)
NSF (1)
Sir Henry Wellcome Postdoctoral Fellowship application, UK (1)
University of Delaware seed grant competition (2)
University of Missouri Research Board (1)
Virginia Commonwealth University pilot grant (1)

Journal articles (as of 12/31/2023)

Adolescent Psychiatry (1), Attention, Perception & Psychophysics (13), Brain (1), Brain Sciences (3), Brain Structure and Function (1), Brain Topography (1), Cells (1), Cerebral Cortex (2), Cognition(1), Consciousness & Cognition (2), Cortex (1), Current Biology (1), eLife (3), European Journal of Neuroscience (6), Experimental Brain Research (1), Eye & Brain (2), Frontiers in Aging Neuroscience (1), Frontiers in Behavioral Neuroscience (1), Frontiers in Computational Neuroscience (1), Frontiers in Human Neuroscience (2), Frontiers in Integrative Neuroscience (1), Frontiers in Neuroscience (7), Frontiers in Psychology (6), Frontiers in Systems Neuroscience (3), Human Brain Mapping (3), Investigative Ophthalmology & Vision Science (3), Journal of Cognitive Neuroscience (1), Hournal of Experimental Psychology: General (1), Journal of Experimental Psychology: HPP (5), Journal of Imaging (1), Journal of Mathematical Psychology (3), Journal of Neurophysiology (8), Journal of Neuroscience (74), Journal of Vision (14), Journal of Visualized Experiments (2), Magnetic Resonance in Medicine (1), Nature Communications (4), Nature Neuroscience (1), Nature Reviews Neuroscience (1), NeuroImage (67), NeuroImage Clinical (2), NeuroMapping & Therapeutics (journal proposal) (1), Neuron (2), Neuropsychologia (20), Neuroscience (1), Neuroscience Letters (2), Perception (3), Perception & Psychophysics (8), PLOS Biology (2), PLOS ONE (1), PNAS (2), Psychological Science (4), Psychonomic Bulletin & Review (6), Scientific Reports (4), Seeing & Perceiving (2), Transactions on Neural Systems & Rehabilitation Engineering (1), Vision Research (4), Visual Cognition (1)

Guest editor

eLife (1)

External tenure and promotion letters (4)

University service

- Chair, Equity and Inclusion Committee, Psychological & Brain Sciences (2023–), University of Delaware
- Chair, Cognitive Psychology area, Psychological & Brain Sciences (2023–), University of Delaware (includes Advisory Committee, Graduate Committee and Safety Committee)
- BRIDGE Committee, Psychological & Brain Sciences (2021–2022), University of Delaware
- Chair, Search Committee, Center for Biomedical & Brain Imaging Research Associate (2021), University of Delaware
- Chair, Search Committee, Center for Biomedical & Brain Imaging MRI Physicist (2021), University of Delaware
- Research ramp-up committee, Psychological & Brain Sciences (2020), University of Delaware
- Chair, Search Committee, Center for Biomedical & Brain Imaging MRI Physicist (2019), University of Delaware
- Executive Committee, Interdisciplinary Neuroscience Graduate Degree Program (2018–), University of Delaware
- Search Committee, Psychological & Brain Sciences small animal MRI faculty position (2018–2019), University of Delaware
- Chair, Search Committees, Center for Biomedical & Brain Imaging Manager and MRI technologist (2018), University of Delaware
- Search Committee, Kinesiology & Applied Physiology Neuroscience faculty positions (×2) (2017–2018), University of Delaware
- Biology Department Seminar Committee (2012–2013, 2015–2016), York University
- Faculty of Science Tenure & Promotions Committee (2012–2014, 2015–2016), York University
- Undergraduate Neuroscience Program exploratory group (2011–2016), York University
- Centre for Vision Research Steering Committee (2011–2014), York University
- MRI Business Committee (2010–2014), York University
- Search Committee, Visual Neuroscience/Computational Neuroscience of Vision faculty position (2010–2011), York University
- Search Committees, MRI Technologist (2010) and MRI Analyst (2011), York University
- Brain Imaging Center Committee and MRI Safety sub-committee (2009–2010), University of Missouri
- Search Committee, Cognitive Psychology/Cognitive Neuroscience faculty position (2009–2010), University of Missouri
- Search Committee, MRI Physicist (2009–2010), University of Missouri

Teaching

University of Delaware, Newark, DE   2016–
- Instructor, PSYC 653: Introduction to fMRI (graduate)
- Instructor, PSYC 667: Attention and perception (graduate)   2022

York University, Toronto, ON   2010–2015
- Instructor, BIOL 5148: Introduction to fMRI (graduate)
- Co-instructor, NATS 1860: Neuroscience for non-science majors (undergraduate)

University of Missouri, Columbia, MO   2009–2010
- Instructor, PSYCH 9001.8 & 9230: Introduction to fMRI (graduate)

University of Rochester, Rochester, NY   2006–2008
- Laboratory instructor, BCS 513: Introduction to fMRI (graduate)
- Co-instructor, BCS 209: Introduction to fMRI (undergraduate)
- Instructor, workshop on Matlab Psychophysics Toolbox software

Princeton University, Princeton, NJ   2004
- Instructor, PSY 593: Matlab for fMRI analysis and stimuli (graduate)

University of Rochester, Rochester, NY   1996–2001
- Co-instructor, BCS 110, 111: Cognitive psychology (undergraduate)
- Co-instructor, BCS 208: Perception & cognition lab (undergraduate)

Alabama School of Mathematics and Science, Mobile, AL   1995–1996
   Residential faculty: computational science and fencing

Mentoring

Faculty metoring
- Dayan Knox (2021–), University of Delaware
- Alon Hafri (2022–), University of Delaware
- Jasmine Cloutier (2023–), University of Delaware

Former postdoctoral fellows
- Qianli Meng (2019–2023), University of Delaware
- Carlos Mugruza (2020), University of Delaware
- Eunsam Shin (2009–2010), co-supervised, University of Missouri

Current PhD students
- Josiane Mukahirwa (2022–), University of Delaware
- Andrew Lisech (2023–), University of Delaware

Former PhD students
- Irem Yildirim (2018–2022), "Investigating the role of m and p pathways in the human brain during binocular rivalry", University of Delaware
- Debra Soh, PhD (2012–2017), "Function and structural neuroimaging of paraphilic hypersexuality in men", York University
- Kevin DeSimone, PhD (2013–2016), "Non-invasive segmentation of the lateral geniculate nucleus", York University
- Larissa McKetton, PhD (2012–2016), "Peripheral and central auditory processing in people with absolute pitch", York University
- Mónica Giraldo-Chica, PhD (2011–2014), "Anatomical differences of the lateral geniculate nucleus in subjects with dyslexia", visiting student at York University from the University of Barcelona

Former master's students
- Heather Aiken (2021–2022), University of Delaware
- Anahit Grigorian, MSc (2013–2015), "Abnormal brain connectivity in the primary visual pathway in human albinism", York University
- Joseph Viviano, MSc (2011–2013), "Tremotopic mapping of the human thalamic reticular nucleus", York University
- Kevin DeSimone, MA (2010–2013), "Population receptive fields and multiple object tracking in the human visual cortex", Department of Psychology nominee for Faculty of Graduate Studies annual thesis prize competition, 2013 Marian Regan Memorial Prize (best master's thesis in vision science), York University
- Larissa McKetton, MSc (2011–2012), "Abnormal visual system development in human albinism", 2011–12 Marian Regan Memorial Prize (best master's thesis in vision science), York University

Undergraduate senior thesis students
- Ibrahim Malik (2015–2016), "Morphology comparison of the thalamic nuclei in subjects with albinism and dyslexia compared to controls", York University
- Roshan Boodram (2014), "A review of the neural mechanisms of attention and perceptual salience", York University
- Violeta Cobo Gallardo (2014), "A review of the link between Major Depressive Disorder, hippocampal function and potential memory loss" (committee member), York University
- Anahit Grigorian (2012), "A review of clinical syndromes affecting the structure of the lateral geniculate nucleus of humans and other mammals", York University
- Saadia Malik (2012), "The development of the optic chiasm and the analysis of abnormalities of the optic chiasm as seen in clinical cases of human albinism and non-decussating retinal-fugal fibre syndrome", York University
- Maria Gemzicka (2011–2012), "Anxiety and the structure of the amygdala sub-nuclei", York University

Committees

- Pushpita Bhattacharyya, MS (2023), "Differences in visual capture of connected body parts in the mirror-box illusion reflect local variations in cross-modal congruence and unimodal variance" University of Delaware
- Luisa Raigosa Posada, MS (2023), "Neural correlates of tactile localization in external and somatotopic frames of reference", University of Delaware
- Alyssa Levy, MS (2022–2023), University of Delaware
- Banjit Singh, PhD (2022–), University of Delaware
- Anupama Nair, PhD (2021–), University of Delaware
- Katrina Milbocker, PhD (2021–2022), "Discovering the immediate and lasting benefits of an aerobic intervention in adolescence on corpus callosum development in a rat model of fetal alcohol spectrum disorder", University of Delaware
- Shane McGinty, PhD (2020–), University of Delaware
- Negin Mohammadmirzaei, PhD (2020–), University of Delaware
- Anton Lebed, PhD (2022), "Distortions of spatial perception due to the presence of objects", University of Delaware
- Gillian LeBlanc, MS (2021–2022), "Effects of neonatal alcohol exposure and an adolescent exercise intervention on myelin basic protein density in a rodent model of FASD", University of Delaware
- Leeland Rogers, PhD (2020–2022), "Contextual influences on visual statistical learning", University of Delaware
- Nicholas Chouramanis, PhD (2020–2022), "Effect of age and handgrip exercise on renal oxygenation in healthy adults", University of Delaware
- Suhyoun Park, PhD (2020), "Interactions between reward and visual statistical learning", University of Delaware
- Elizabeth Salas, PhD (2012–2017), "Finger flexor tendon orientation and location as a function of postural changes of the wrist and forearm: the quantification of musculoskeletal loading in jobs with deviated forearms", York University
- Mariann Oemisch, PhD (2013–2016), York University
- Magdalena Lysenko, PhD (2013–2017), York University
- Narmeen Ammari, PhD (2016), "Preserved, deteriorated, and premorbidly impaired patterns of intellectual ability in schizophrenia", York University
- Mehdi Daemi, PhD (2016), "Multisensory gaze-shift planning", York University
- Nevena Savija, MSc (2016), "Investigating visual to auditory crossmodal compensation in a model for acute blindness", York University
- Prabhjot Dhami, MSc (2016), "Investigating the functional and structural neural correlates associated with dance expertise", York University
- Bianca-Ruxandra Baltaretu, MSc (2016), "Neural mechanisms of transsaccadic integration of visual features", York University
- Michael Olshansky, MA (2015), "The effects of musical expertise on sensory processing", York University
- Gabriella Levkov, MSc (2015), "The effects of dance on motor and non-motor functions, and resting state electroencephalography in individuals with Parkinson's disease and age-matched controls", York University

- Ramy Kirollos, MSc (2014), "The neural correlates of vection—an fMRI study", York University
- Michelle Dragan, MSc (2014), "Measuring memory using a visual search task in a clinical Alzheimer's treatment trial", York University
- Pankhuri Malik, MSc (2014), "Transcranial magnetic stimulation of early visual cortex during trans-saccadic integration of object features", York University
- Chen Shen, MSc (2014), "Anterior cingulate cortex cells identify errors of attentional control prior to prefrontal disengagement", York University
- Magdalena Lysenko, MA (2013), "Functional MRI activation of inhibitory control in adolescents and young adults with multiple sclerosis", York University
- Michael Lubinsky, MSc (2013), "Estradiol extraction and quantification in macaques: development and evaluation of sampling methods", York University
- Michael Veskers, MSc (2013), "Testing distance perception acuity in synthetic faces", York University
- Yao Jun Zhao, MSc (2012), "The feasibility of using feature-flow and label transfer system to segment medical images with deformed anatomy in orthopedic surgery", York University
- Blake Martin, PhD (2012), "Where is my left hand when I think about the right? The effect of secondary task interference on action and proprioception", York University
- Boge Stojanoski, PhD (2011), "Electrophysiological investigation of feature-based attention during object perception", University of Toronto
- Minjung Kim, MA (2011), "Shape and luminance cues from the visual perception of glow", York University
- Charles Or, PhD (2011), "Face recognition: processing viewpoint and identity information", York University