**Curriculum vitae of Lawrence Kevin Cormack**

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| 1 University Station A8000 | Ph. (512) 471-5380 |
| Department of Psychology | FAX (512) 471-5935 |
| University of Texas | cormack@mail.utexas.edu |
| Austin, TX 78712-0187 |  |

**Education**:

University of Florida, 1982 - 1986

Bachelor of Science with High Honors (Summa Cum Laude)

Major: Psychology

University of California at Berkeley, 1987 - 1992

Ph.D. in Physiological Optics

**Research and Professional Experience**:

Current:

(2011 - Present) - University of Texas, Austin - Professor of Psychology and Neuroscience.

(1998 - 2011) - University of Texas, Austin - Associate Professor of Psychology and Neuroscience.

 (1992 - 1998) - University of Texas, Austin - Assistant Professor of Psychology.

**Publications**:

Journal Articles

Reno, James; Thakore, Neha; Cormack, Lawrence; Schallert, Timothy; Bell, Richard; Maddox, W.; Duvauchelle, Christine (2017) Negative affect-associated USV acoustic characteristics predict future excessive alcohol drinking and alcohol avoidance in male P and NP rats. *Alcoholism: Clinical & Experimental Research*, In Production. DOI: 10.1111/acer.13344.

Auchter, A., Cormack, L.K., Niv, Y., Gonzalez-Lima, F., & Monfils, M.H. (2017) [Reconsolidation-extinction interactions in fear memory attenuation: the role of inter-trial interval variability](http://frontiersin.org/Journal/FullText.aspx?d=0&name=Behavioral_Neuroscience&ART_DOI=10.3389/fnbeh.2017.00002" \t "_blank). *Frontiers in Behavioral Neuroscience*, 11(2), DOI=10.3389/fnbeh.2017.00002.

Joo, S.J., Czuba, T. B.,  Cormack, L.K., & Huk, A.C. (2016). Separate perceptual and neural processing of velocity- and disparity-based 3D motion signals.*Journal of Neuroscience,*36(42) 10791-10802, DOI: http://dx.doi.org/10.1523/JNEUROSCI.1298-16.2016.

Greer, D.A., Bonnen, K.L., Huk, A.C., Cormack, L.K. (2016) Speed discrimination in the far monocular periphery: A relative advantage for interocular comparisons consistent with self-motion. *Journal of Vision* , 16(10):7 doi: 10.1167/16.10.7.

Choi, L.K., Bovik, A.C., & Cormack, L.K. (2016) The effect of eccentricity and spatiotemporal energy on motion silencing. Journal of Vision, 16(5) DOI: 10.1167/16.5.19

Choi, L.K., Cormack, L.K., & Bovik, A.C. (2016) Motion silencing of flicker distortions on naturalistic videos. Signal Processing: Image Communication, 39, 328-341

Katz, L.N., Hennig, J., Cormack, L.K., & Huk, A.C. (2015). A distinct mechanism of temporal integration for motion through depth.*Journal of Neuroscience,*35(28): 10212-10216.

Bonnen, KL, Burge, JD, Yates, JL, Pillow, JW & Cormack, LK. (2015) Continuous Psychophysics: Target-tracking to Measure Visual Sensitivity. Journal of Vision, 15(3).

C.-C. Su., L.K. Cormack, & A.C. Bovik. (2015) A Closed-form correlation model of oriented bandpass natural images. IEEE Signal Processing Letters, 22(1), 22-25.

C.-C. Su., L.K. Cormack, & A.C. Bovik. (2015) Oriented Correlation Models of Distorted Natural Images with Application to Natural Stereopair Quality Evaluation. IEEE Transactions on Image Processing, 24(5), 1685-1699.

Czuba, T. B., Huk, A. C., Cormack, L. K. & Cohn, A. (2014) Area MT encodes three-dimensional motion. The Journal of Neuroscience. 34(47): 15522-15533; doi: 10.1523/JNEUROSCI.1081-14.2014

L. K. Choi, A. C. Bovik, and L. K. Cormack (2014) "Spatiotemporal flicker detector model of motion silencing," Perception , vol. 43, pp. 1286-1302.

C.-C. Su., L.K. Cormack, & A.C. Bovik. (2014) Bivariate statistical modeling of color and range in natural scenes. Proc. SPIE. 9014, Human Vision and Electronic Imaging XIX doi:10.1117/12.2036505

Chen, M., Cormack L. & Bovik, A. (2014) Distortion conspicuity on stereoscopically viewed 3D images may correlate to scene content and distortion type. Journal of the Society for Information Display. [21(11)](http://onlinelibrary.wiley.com/doi/10.1002/jsid.v21.11/issuetoc)  DOI: 10.1002/jsid.198

C.-C. Su., L.K. Cormack, & A.C. Bovik. (2014) Closed-Form Correlation Model of Oriented Bandpass Natural Images. IEEE Signal Processing Letters (22)1. doi: 10.1109/LSP.2014.2345765

Jackson, R.E., Willey, C.R., & Cormack, L.K. (2013) Learning and Exposure Affect Environmental Perception Less than Evolutionary Navigation Costs. PLoS ONE 8(4): e59690. doi:10.1371/journal.pone.0059690

Mulligan, J.B., Stevenson, S.B., & Cormack, L. K. (2013) Reflexive and voluntary control of smooth eye movements. Proc. SPIE. 8651, Human Vision and Electronic Imaging XVIII doi: 10.1117/12.2010333

C.-C. Su, A.C. Bovik and L.K. Cormack, (2013) "Color and depth priors in natural images," IEEE Transactions on Image Processing. 22(6). doi: 10.1109/TIP.2013.2249075

Chen, M., Su, C. , Kwan, D., Cormack L. & Bovik, A. (2013) Full-Reference Quality Assessment of Stereopairs Accounting for Rivalry. Signal Processing: Image Communication. 28(9). doi:10.1016/j.image.2013.05.006

Reno, J.M., Marker, B., Cormack, L.K., Schallert, T., Duvauchelle, C.L. (2013) [Automating ultrasonic vocalization analyses: the WAAVES program](https://scholar.google.com/scholar?oi=bibs&cluster=1560593808465103948&btnI=1&hl=en). Journal of neuroscience methods. 219(1). doi:10.1016/j.image.2013.05.006

[Pohl, JB, Ghezzi, A, Lew, L, Robles, RB, Cormack, L, and Atkinson, NS (2013). Circadian genes differentially affect tolerance to ethanol in Drosophila. Alcohol Clin Exp Res doi: 10.1111/acer.12173.](http://www.ncbi.nlm.nih.gov/pubmed/23808628?dopt=Citation)

Czuba, T. B., Rokers, B., Huk, A. C. & Cormack, L. K. (2012) To CD or not to CD: Is there a 3D motion aftereffect based on changing disparities? Journal of Vision. 12(4)

Czuba, T. B., Rokers, B., Guillet, K., Huk, A. C. & Cormack, L. K. (2011) 3D motion aftereffects reveal distinct direction-selective mechanisms for binocular processing of motion through depth. Journal of Vision. 11(10): 18; doi:10.1167/11.10.18

Kane, J.R., Ciucci, M.R., Jacobs, A.N., Tews, N., Russell, J.A., Ahrens, A.M., Ma, S.T., Britt, J.M., Cormack, L.K., Schallert, T. (2011) Assessing the role of dopamine in limb and cranial-oromotor control in a rat model of Parkinson’s disease. 44(5) *Journal of Communication Disorders*. doi:10.1016/j.jcomdis.2011.04.005

Liu, Y., Cormack L. & Bovik, A. (2011) Statistical modeling of 3D natural scenes with application to Bayesian stereopsis. IEEE Transactions on Image Processing. 20 (9). doi: [10.1109/TIP.2011.2118223](http://dx.doi.org/10.1109/TIP.2011.2118223%22%20%5Ct%20%22_blank)

Rokers, B., Czuba, T.B., Cormack, L.K. & Huk, A.C. (2011) Motion processing with two eyes in three dimensions. *Journal of Vision*. vol. 11 no. 2. doi: 10.1167/11.2.10

O’Bryant, A., Allred, R., Maldonado, M., Cormack, L., and Jones, T. (2011) Breeder and batch-dependent variability in the acquisition and performance of a motor skill in adult Long–Evans rats. *Behavioural Brain Research* 224 (2011) 112–12. doi:10.1016/j.bbr.2011.05.028

Liu, Y., Cormack, L.K., & Bovik, A.C. (2010) Dichotomy between luminance and disparity features at binocular fixations. *Journal of Vision* 10(12), 1-17.

Czuba, T. B., Rokers, B., Huk, A. C. & Cormack, L. K. (2010) Speed and eccentricity tuning reveals a central role for the velocity-based cue to 3D visual motion. *Journal of Neurophysiology*. 104, 2886-2899. doi:10.1152/jn.00585.2009

Seshadrinathan, K., Soundararajan, R., Bovik, A. & Cormack, L. K. (2010). [Study of subjective and objective quality assessment of video.](http://www.ncbi.nlm.nih.gov/pubmed/20129861) *IEEE Transactions on Image Processing*, *19*(6), 1427-1441. (peer-reviewed)

Jackson, R. E. & Cormack, L. K. (2010). Reducing the presence of navigation risk eliminates strong environmental illusions. *Journal of Vision, 10*(5):9, 1-8. [doi:10.1167/10.5.9](http://dx.doi.org/doi%3A10.1167/10.5.9)

Seshadrinathan, K., Soundararajan, R., Bovik, A. & Cormack, L. K. (2010). A subjective study to evaluate video quality assessment algorithms. Human Vision and Electronic Imaging XV, *Proceedings of SPIE, 7527,* 7527OH-1-10. doi:10.1117/12.845382

Rokers, B., Cormack, L. K. & Huk, A. C. (2009). Disparity- and velocity-based signals for three-dimensional motion perception in human MT+. *Nature Neuroscience, 12*(8), 1050-1055. (peer-reviewed)

van der Linde, I., Rajashekar, U., Bovik, A. C. & Cormack, L. K. (2009). Visual memory for fixated regions of natural images dissociates attraction and recognition. *Perception*, *38*(8), 1152-1171. (peer-reviewed)

van der Linde, I., Rajashekar, U., Bovik, A. C. & Cormack, L. K. (2009). DOVES: a database of visual eye movements. *Spatial Vision*, *22*(2) 161-177. (peer-reviewed)

Tavassoli, A., van der Linde, I., Bovik, A. C. & Cormack, L. K. (2009). Eye movements selective for spatial frequency and orientation during active visual search.[*Vision Research*](http://www.sciencedirect.com/science/journal/00426989)*,* [*49*(2](http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%234873%232009%23999509997%23800050%23FLA%23&_cdi=4873&_pubType=J&view=c&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=579c4ddba183298e9a44ea9b877ef88d)), 173-181. (peer-reviewed)

Kirson, D., Huk, A. C. & Cormack, L. K. (2008). Quantifying spatial uncertainty of visual area boundaries in neuroimaging data. *Journal of Vision*, *8*(10):10, 1-15. [doi:10.1167/8.10.10](http://dx.doi.org/doi%3A10.1167/8.10.10) (peer-reviewed)

Jackson, R. E. & Cormack, L. K. (2008). Evolved navigation theory and the environmental vertical illusion. *Evolution and Human Behavior*, *29*(5), 299-304. (peer-reviewed)

Spinetta, M. J., Woodlee, M. T., Feinberg, L. M., Stroud, C., Schallert, K., Cormack, L. K. & Schallert, T. (2008). Alcohol-induced retrograde memory impairment in rats: prevention by caffeine. *Psychopharmacology, 201*(3), 361-371. (peer-reviewed)

Liu, Y., Bovik, A. C. & Cormack, L. K. (2008). Disparity statistics in natural scenes. *Journal of Vision*, *8*(11):19, 1-14. [doi:10.1167/8.11.19](http://dx.doi.org/doi%3A10.1167/8.11.19) (peer-reviewed)

Rokers, B., Cormack, L. K. & Huk, A. C. (2008). Strong percepts of motion through depth without strong percepts of position in depth. *Journal of Vision, 8*(4):6, 1-10. [doi:10.1167/8.4.6](http://dx.doi.org/doi%3A10.1167/8.4.6) (peer-reviewed)

Monaco, J. P., Bovik, A. C. & Cormack L. K. (2008). Nonlinearities in stereoscopic phase-differencing. *IEEE Transactions on Image Processing* *17*(9): 1672-1684. (peer-reviewed*)*

Woodlee, M. T., Kane, J. R., Chang, J., Cormack, L. K. & Schallert, T. (2008). Enhanced function in the good forelimb of hemi-parkinson rats: Compensatory adaptation for contralateral postural instability? *Experimental Neurology*, *211*(2), 511-517. (peer-reviewed)

Rajashekar, U., van der Linde, I., Bovik, A. C. & Cormack, L. K. (2008). GAFFE: A gaze-attentive fixation finding engine. *IEEE Transactions on Image Processing* *17*(4), 564-573. (peer-reviewed)

Tavassoli, A., van der Linde, I., Bovik, A. C. & Cormack, L. K. (2007). Orientation anisotropies in visual search revealed by noise. *Journal of Vision*. *7*(12):11, 1-8. [doi:10.1167/7.12.11](http://dx.doi.org/doi%3A10.1167/7.12.11) (peer-reviewed)

Rajashekar, U., van der Linde, I., Bovik, A. C., Cormack, L. K. (2007). Foveated analysis of image features at fixations. *Vision Research*. *47*(25), 3160-3172. (peer-reviewed)

Jackson, R. E. & Cormack, L. K. (2007). Evolved navigation theory and the descent illusion. *Perception & Psychophysics*. *69*(3), 353-362. (peer-reviewed)

Tavassoli, A., van der Linde, I., Bovik, A. C. & Cormack, L. K. (2007). An efficient technique for revealing visual search strategies with classification images. *Perception & Psychophysics*. *69*(1): 103-112. (peer-reviewed)

Rajashekar, U., Arnow, T., Bovik, A. C. & Cormack, L. K. (2006). Gaze-centric image analysis for efficient visual search. *SPIE Newsroom*.

Rajashekar, U., Bovik, A. C. & Cormack, L. K. (2006). [Visual search in noise: Revealing the influence of structural cues by gaze-contingent classification image analysis](http://journalofvision.org/6/4/7/). *Journal of Vision.* *6*(4), 379-386. [doi:10.1167/6.4.7](http://dx.doi.org/doi%3A10.1167/6.4.7) (peer-reviewed)

van der Linde, I., Rajashekar, U., Cormack, L. K. & Bovik, A. C. (2005). A study of human recognition rates for foveola-sized image patches selected from initial and final fixations on calibrated natural images. Human Vision and Electronic Imaging X, *Proceedings of SPIE, 5666,* 27-38.

Sheikh, H. R., Bovik, A. C. & Cormack, L. K. (2005). No-reference quality assessment using natural scene statistics: JPEG2000. *IEEE Transactions on Image Processing*. *14*(11): 1918-1927. (peer-reviewed)

van der Linde, I., Rajashekar, R., Cormack, L. K., Bovik, A. C. (2004). The role of natural image statistics in visual memory and recognition, *British Machine Vision Association and Society for Pattern Recognition: Symposium on Image Features & Statistics,* October 27, 2004, London, UK. [Abstract]

Rajashekar U., Cormack, L. K. & Bovik, A. C. (2004). Point of gaze analysis reveals visual search strategies. [Human Vision and Electronic Imaging IX](http://electronicimaging.org/program/04/conferences/index.cfm?fuseaction=5292), *Proceedings of SPIE*, *5292*, 296-306.

Sheikh, H. R., Bovik, A. C. & Cormack, L. K. (2003). Blind quality assessment of JPEG2000 compressed images using natural scene statistics. *Conference Record of the Thirty-Seventh Asilomar Conference on Signals, Systems, and Computers, 2* 1403-1407.

Sheikh, H. R., Wang, Z., Cormack, L. K. & Bovik, A. C. (2002). Blind quality assessment for JPEG2000 compressed images. *Conference Record of the Thirty-Sixth Asilomar Conference on Signals, Systems, and Computers, 2,* 1735-1739.

Rajashekar, U., Cormack, L. K. & Bovik, A. C. (2002). Visual search: structure from noise. *Proceedings of the 2002 symposium on Eye tracking research & applications,* 119-123.

Stevenson, S. B. & Cormack, L. K. (2000). A contrast paradox in stereopsis, motion perception, and vernier acuity. *Vision Research* *40*(21), 2881-2884. (peer-reviewed)

Choe, Y., Miikkulainen, R. and Cormack, L. K. (2000). Effects of presynaptic and postsynaptic resource redistribution in Hebbian weight adaptation. *Neurocomputing 32-33*, 77-82. (peer-reviewed)

Chen, T., Bovik, A. C., and Cormack, L. K. (1999). Stereoscopic ranging by matching image modulations. *IEEE Transactions on Image Processing*, *8*(6), 785-797. (peer-reviewed)

Cormack, L. K., Stevenson, S. B. & Landers, D. D. (1997). Interactions of spatial frequency and unequal monocular contrasts in stereopsis. *Perception, 26*(9): 1121-1136.

Cormack, L. K., Landers, D. D. and Ramakrishnan, S. (1997). Element density and the efficiency of binocular matching. *Journal of the Optical Society of America, 14*(4): 723-730.

Landers, D. D. and Cormack, L. K. (1997). Asymmetries and errors in perception of depth from disparity suggest a multicomponent model of disparity processing. *Perception and Psychophysics*, *59*(2): 219-231.

Cormack, L. K. and Riddle, R. B. (1996). Binocular correlation detection with oriented dynamic random-line stereograms. *Vision Research,* *36*(15): 2303-10.

Cormack, L. K., Stevenson, S. B. & Schor, C. M. (1994). An upper limit to the binocular combination of stimuli. *Vision Research*, *34*(19)*,* 2599-2608. (peer-reviewed)

Stevenson, S. B., Cormack, L. K. & Schor, C. M. (1994). The effect of stimulus contrast and interocular correlation on disparity vergence. *Vision Research*, *34*(3), 383-396.

Cormack, L. K., Stevenson, S. B. & Schor, C. M. (1993). Disparity-tuned channels of the human visual system. *Visual Neuroscience*, *10*(4), 585-596.

Stevenson, S. B., Cormack, L. K., Schor, C. M. & Tyler, C. W. (1992). Disparity tuning in mechanisms of human stereopsis. *Vision Research*, *32*(9), 1685-1694.

Schor, C. M., Alexander, J., Cormack, L. K. & Stevenson, S. B. (1992). Negative feedback control model of proximal convergence and accommodation. *Ophthalmic and Physiological Optics. 12*(3), 307-318.

Cormack, L. K., Stevenson, S. B. & Schor, C. M. (1991). Interocular correlation, luminance contrast and cyclopean processing. *Vision Research*, *31*(12), 2195-2207.

Stevenson, S. B., Cormack, L. K. & Schor, C. M. (1991). Depth attraction and repulsion in random dot stereograms. *Vision Research*, *31*(5), 805-813.

Stevenson, S. B., Cormack, L. K. & Schor, C. M. (1989). Hyperacuity, superresolution and gap resolution in human stereopsis. *Vision Research*, *29*(11), 1597-1605. (peer-reviewed)

Book Chapters:

Geisler, W. S. & Cormack, L. K. (2011) Models of overt attention. In S.P. Liversedge, I. Gilchrist. & S. Everling (Eds.), *Oxford Handbook on Eye Movements*. Oxford, UK: Oxford University Press.

Cormack, L. K. (2010). Visual scene statistics. In B. Goldstein (Ed.), *Encyclopedia of Perception, 2* (pp. 1116-1119). Thousand Oaks, CA: Sage.

Cormack, L. K. (2005). Computational models of early human vision. In A. C. Bovik (Ed.), *Handbook of Image and Video Processing* (pp. 325-345). New York, NY: Elsevier Academic Press.

White, K. D., Cormack, L. K., Woods, C. B., Krantz, J. H. & Franzen, O. (1987). Binocular convergence to interocular correlations. In S. S. Asfour (Ed.), *Trends in Ergonomics/Human Factors* *IV* (pp. 187-194). Elsevier Science: North - Holland.

**Research Grants/Contracts**:

Submitted / Pending:

National Institutes of Health (Co-PI) Motion processing with two eyes in three dimensions. Req. Mar. 1, 2017 - Feb. 31, 2022 ($1,250,000 total direct costs)

Co-PIs: Lawrence Cormack, Alexander Huk at 50% effort each.

Scored at 6% percentile; award expected.

Active Awarded:

Past Awarded:

National Institutes of Health (Co-PI) Motion processing with two eyes in three dimensions. Req. Jan. 1, 2010 - Dec. 31, 2014 ($1,250,000 total direct costs)

Co-PIs: Lawrence Cormack, Alexander Huk and Adam Kohn at 33% effort each.

National Science Foundation (PI) Statistical Measurement, Modeling and Inference on Natural 3D Scenes. July 15, 2009 – June 30, 2012. ($496,614)

Co-PIs: Lawrence Cormack and Alan Bovik at 50% effort each.

7/15/09 – 6/30/10 ($324,783)

National Science Foundation (Co-PI) Foundations of Visual Search. November 1, 2004 – November 30, 2010. ($1,200,000)

Co-PIs: Lawrence Cormack, Alan Bovik and Eyal Seidemann at 33% effort each.

11/1/04 – 11/30/05 ($480,000)

11/1/05 – 11/30/06 ($240,000)

11/1/06 – 11/30/10 ($480,000)

National Science Foundation (Co-PI) Integrated Sensing: Active Stereoscopic Visual Search Driven by Natural Scene Statistics Sept. 1, 2002 – July. 31, 2005 ($249,999)

Co-PIs: Lawrence Cormack and Alan Bovik at 50% effort each.

9/1/02 – 8/31/03 ($71,336)

9/1/03 – 8/31/04 ($75,451)

9/1/04 – 8/31/05 ($103,212)

Texas Advanced Research Program (PI) “New Models of Low-Level Visual Search and Applications to Robotic Vision, Detection, and Data Mining” Jan. 1, 2002 – Dec. 31, 2004 ($143,950)

PI Cormack at 100% effort.

1/1/2002 – 12/31/2004 ($143,950)

Texas Interdisciplinary Research Grant (PI) "Foveated Visual Search: From Humans to Machines." Feb 7, 2000 – Aug 31, 2002 ($99,502)

PI Cormack at 100% effort.

2/7/00 – 8/31/01 ($49,950)

9/1/01 – 8/31/02 ($49,552)

NEI/NIH EY10303 (PI) "Binocular Matching, Disparity Channeling and Stereopsis." - January 1, 1994 - January 1, 1999. ($408,264)

PI: Cormack at 100% effort.

1/1/94 – 12/31/94 ($82,680)

1/1/95 – 12/31/95 ($69,198)

1/1/96 – 12/31/96 ($63,814)

1/1/97 – 12/31/97 ($94,398)

1/1/98 – 12/31/99 ($98,174)

AFOSR URI FY93 - (Co-PI) "Local Spatio-Temporal Analysis in Vision Systems" – May 1, 1993 – May 31, 1998. ($3,260,000)

Co-PIs: Wilson Geisler, Alan Bovik, Duane Albrecht and Lawrence Cormack at 25% effort each.

5/1/93 – 5/31/95 ($1,600,000)

5/1/95 – 5/31/96 ($860,000)

5/1/96 – 5/31/98 ($800,000)

**Service:**

*U.T. Austin, Institute for Neuroscience* - (Dan Johnston, Director)

Admissions Committee - (Kristen Harris, Chair), 2003 - present

Executive Committee - (Dan Johnston, Chair), 1995-2000, 2004 - present

*U.T. Austin, Imaging Research Center* - (Russ Poldrack, Director; Art Markman, former Director)

 Executive Committee - (Russ Poldrack, Chair), 2007 - present

*U.T. Austin, Division of Statistics and Scientific Computing* - (Sheldon Eckland-Olson, Director)

 Co-Director, Graduate Portfolio Program in Applied Statistical Modeling, 2010 - present

 Graduate Portfolio Committee - (Tasha Beretvas, Chair), 2008 - present

 Ph.D. Program Committee - (Jen Duthie, Chair), 2008 - present

*U.T. Austin, Psychology Committees*

Space (Chair), 2008 – present

Steering Committee, 2007 – present

Head, Perceptual Systems Area, 2005 - present

Computer (Chair), 2001 - present

Shop (Chair), 2001 - present

Bachelor of Science Curriculum Committee, 1999 – 2001

Salary (Chair), 1998 - 2008

*U.T. Austin, College of Liberal Arts*

Faculty Information Technology Advisory Committee, 2010 - present

Liberal Arts Instructional Technology Services Grant Review Committee, 2001 - present

**Awards/Fellowships:**

The University of Texas at Austin nominee for the Presidential Faculty Fellowship from the National Science Foundation. (One of two UT nominees, 1995)

Air Force Office of Sponsored Research Student Fellowship (Administered through the Southeastern Center for Electrical Engineering) - July, 1990 - May, 1993

Ezell Fellowship - August, 1989 - July, 1990

Outstanding Instructor Award - May, 1989

Kaiser Fellowship - August, 1987 - June, 1988

Fight For Sight Student Fellowship - June, 1987 - August 1987

Bausch & Lomb Honorary Scientific Award - May, 1982