

CURRICULUM VITAE

Tyler, Christopher W.

Senior Scientist

EDUCATION/TRAINING

University of Leicester, UK	B.A.	1966	Psychology
University of Aston, UK	M.Sc.	1967	Applied Psychology
University of Keele, UK	Ph.D	1970	Neurocommunication
University of Keele, UK	D.Sc	2004	Visual Processing

Professional Experience

1970-1972	Research Fellow, Northeastern University, Boston, MA.
1972-1973	Adjunct Assistant Professor, Northeastern University, Boston, MA.
1973-1974	Research Fellow, Dept. of Psychology, University of Bristol, UK.
1974-1975	Research Fellow, Dept. of Sensory & Perceptual Processes, Bell Laboratories, NJ.
1975-1980	Associate Scientist, The Smith-Kettlewell Eye Research Institute, San Francisco, CA.
1976-1980	External Doctoral Thesis Advisor, Dept. of Psychology, Stanford University.
1978-1982	Honorary Research Associate, Institute of Ophthalmology, London, UK.
1978-present	External Doctoral Thesis Advisor, Depts. of Psychology & Optometry, UC, Berkeley.
1980-1982	Scientist, The Smith-Kettlewell Eye Research Institute, San Francisco, CA.
1985-1988	Visiting Professor, UCLA Medical Center, Jules Stein Institute.
1986-1987	Adjunct Professor, UC, Berkeley, School of Optometry.
1982-present	Senior Scientist, The Smith-Kettlewell Eye Research Institute, San Francisco, CA.
1990-2003	Associate Director, The Smith-Kettlewell Eye Research Institute, San Francisco, CA.
2002-present	Head, Smith-Kettlewell Brain Imaging Center, San Francisco, CA.
2007 (April)	Visiting Professor, Université René Descartes, Paris, France.
2007-present	Adjunct Professor, UC San Francisco
2008 (Sept)	Visiting Professor, National University of Taiwan, Taipei, Taiwan.
2013-present	Professor, Division of Optometry and Vision Sciences, City University, London, UK (part-time).

Honors

The W.A. Kettlewell Chair of Research in Visual Science, 1984-85.
Garland Clay Award, American Association of Optometry (with P. Apkarian and D. Levi).
Member and Chair, Optical Society Topical Meeting on Visual Science and Its Applications, 1993-98.
Chair, Noninvasive Assessment of the Visual System, OSA Topical Meeting, 1994-95.
The Catherine D. Kettlewell Chair of Research in Visual Science, 1995-96.
Keynote Speaker, European Conference on Visual Perception, 2007.
Invited Panelist, World Science Festival, 2009.
Keynote Speaker, Asian Visual Processing Conference, 2010
Invited Panelist, World Science Festival, 2010.
Keynote Speaker, Computational Vision Summer School, U Tuebingen, 2012
Keynote Speaker, Eye Research Institute and the Center for Visual Cultures, U Wisconsin, 2012
Keynote Speaker, European Conference on Visual Image Processing, 2013
Keynote Speaker, AAAS Forum, Washington, DC, 2013
Keynote Speaker, SPIE Conference, Burlingame CA, 2015

Grant Review Panels

NSF Project Review Panel, 1985-6, 1994-6, 2007-10.
NIH Core Grant Review Panel, 2004-8.
NSF Center Review Panel, 2008-10
COBRE Review Panel, 2005-present
CRCNS Review Panel, 2010

Editorial Appointments

Editor-in-Chief, *Open Medical Imaging Journal*, 2008-present
Editor-in-Chief, *Symmetry*, 2016-present
Feature Editor, and member of Editorial Board, *Symmetry*, 2009-present
Feature Editor, *Frontiers in Systems Neuroscience*, 2014
Member of Editorial Board, *Perception*, 2009-present
Executive Editor, *Perception*, 1998-2008
Feature Editor, *Spatial Vision*, 1996
Member of Editorial Board, *Vision Research*, 2001-2010
Member of Editorial Board, *Clinical Ophthalmology*, 2006-present
Member of Editorial Board, *Chinese Journal of Psychology*, 2010-present

Festschrift Participations:

Stuart Anstis
Matt Alpern
Bruce Bridgeman
Fergus Campbell
Carter Collins
Russell DeValois
Jay Enoch
Richard Gregory
Geoff Henry
Arthur Jampolsky
Richard Jung
Bela Julesz
Ivo Kohler
Martin Regan
George Sperling
Gerald Westheimer
Bruce Bridgeman

Recent Publications (from over 200 peer-reviewed publications)

- Tyler CW**, Likova LT (2017) Studying the retinal source of photophobia by facial electroretinography. *Optom Vis Sci.* 94(4):511-518.
- Samonds JM, **Tyler CW**, Lee TS (2017) Evidence of stereoscopic surface disambiguation in the responses of V1 neurons. *Cereb Cortex* 27(3):2260-2275.
- Chen PY, Chen CC, **Tyler CW** (2016) The perceived depth from disparity as function of luminance contrast. *J Vis.* 16(11):20
- Tyler CW** (2016) Peripheral color demo. *iPerception.*;6(6):2041669515613671.
- Tyler CW**, Howarth C, Likova LT (2016) Editorial: Neural signal estimation in the human brain. *Front Neurosci.*;10:185.
- Solomon JA, May KA, **Tyler CW** (2016) Inefficiency of orientation averaging: Evidence for hybrid serial/parallel temporal integration. *J Vis.* 16(1):13.
- Tyler CW**, Likova LT, Mineff KN, Elsaid AM, Nicholas SC (2015) Consequences of traumatic brain injury for human vergence dynamics. *Front Neurol.* 5:282. doi: 10.3389/fneur.2014.00282
- Goodrich GL, Martinsen GL, Flyg HM, Kirby J, Garvert DW, **Tyler CW** (2014) Visual function, traumatic brain injury, and post-traumatic stress disorder. *J Rehab Res Devel* 51(4):547-58. doi: 10.1682/JRRD.2013.02.0049.
- Tyler CW** (2013) Binocular eye movements in health and disease. In Rogowitz, B.E., Pappas, T.N. *Human Vision and Electronic Imaging XXV*, 8651:12.
- Tyler CW**, Likova LT (2013) The neurometabolic underpinnings of fMRI BOLD dynamics. In *Advanced Brain Neuroimaging Topics in Health and Disease - Methods and Applications*. Eds Papageorgiou TD, Christopoulos GI, Smirnakis SM. Intech Press, Ch 2, 2014, 21-47
- Tyler CW** (2013) *Visual function and its management in mTBI.* (Editor). SKERI Press: San Francisco.

- Tyler CW**, Likova LT, Elsaid AM, Nicholas SC (2013) Binocular eye movements in health and disease. *Human Vision and Electronic Imaging XVII*, 8651-34.
- Samonds JM, Potetz BR, **Tyler CW**, Lee TS (2013) Recurrent connectivity can account for the dynamics of disparity processing in V1. *J Neurosci*. 33(7):2934-46.
- Li X, Huang AE, Altschuler EL, **Tyler CW** (2013) Depth spreading through empty space induced by sparse disparity cues. *J Vis*. 13(10). doi:pii: 7. 10.1167/13.10.7.
- Gorea A, **Tyler CW** (2013) Dips and bumps: on Bloch's law and the Broca-Sulzer phenomenon. *Proc Natl Acad Sci U S A*. 110(15):E1330.
- Chen CC, Chen CM, **Tyler CW** (2013) Depth structure from asymmetric shading supports face discrimination. *PLoS One*. 2013;8(2):e55865.
- Tyler CW**, Elsaid AM, Likova LT, Gill N, Nicholas SC (2012) Analysis of human vergence dynamics. *J Vis*. 2012 12(11).
- Schira MM, **Tyler CW**, Rosa MG (2012) Brain mapping: the (un)folded of striate cortex. *Curr Biol*. 22:R1051-3.
- Tyler CW**, Likova LT (2012) Estimating neural signal dynamics in the human brain. In *Functional Magnetic Resonance Imaging. Frontiers in Systems Neuroscience*, 5:33, 10.3389/fnsys.2011.00033.
- Tyler CW**, Likova LT (2011) Visual surface encoding: A neuroanalytical approach. In: *Computer Vision: From Surfaces to 3D Objects*. Tyler CW (Ed) Chapman Hall: New York.
- Tyler CW** (2011) The role of midlevel surface representation in 3D object encoding. In *Computer Vision: From Surfaces to 3D Objects*. Tyler CW (Ed) Taylor & Francis: New York.
- Tyler CW**, Likova LT (2010) An algebra for the analysis of object encoding. *NeuroImage*, 50: 1243-50.
- Schira MM, **Tyler CW**, Breakspear M, Spehar B (2009) The foveal confluence in human visual cortex: A high-resolution fMRI study. *J Neuroscience*. 29:9050-58.
- Likova LT, **Tyler CW** (2008) Occipital network for figure/ground organization. *Experimental Brain Research* 2008; 189(3): 257-67.
- Tyler CW**, Likova LT (2007) Crowding: a neuroanalytical approach. *J Vis*. 7:16.1-9.
- Likova LT, **Tyler CW** (2007) Stereomotion processing in the human occipital cortex. *Neuroimage* 38:293-305.
- Tyler CW**, Likova LT, Kontsevich LL, Wade AR (2006) The specificity of cortical area KO to depth structure. *NeuroImage*; 30: 228-38.