

Date Prepared: August 1, 2016

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Education

1989	B Sc	Psychology	Hull University, UK
1994	PhD	Psychology	Cardiff University, UK

Postdoctoral Training

1994-1995	Post-Doctoral Research Fellow	Ophthalmology	McGill University, Montreal, Canada
1995-1997	Post-Doctoral Research Fellow	Center For Vision Science	University of Rochester NY, USA

Faculty Academic Appointments

1998-2001	Senior Lecturer	Department of Psychology	Essex University, UK
2001-2007	Senior Lecturer	Institute of Ophthalmology	University College London, UK
2007-2012	Associate Scientist	Schepens Eye Research Institute	Boston, MA. USA
2012-2014	Senior Scientist	Schepens Eye Research Institute	Boston, MA. USA
2007-2011	Assistant Professor	Department of Ophthalmology	Harvard Medical School
2011-2014	Associate Professor	Department of Ophthalmology	Harvard Medical School
2014-	Professor	Department of Psychology	Northeastern University

Appointments at Hospitals/Affiliated Institutions

2001-2006	Senior Research Fellow	Moorfields Eye Hospital	London, UK
2007-present	Visiting Professor	UCL Institute of Ophthalmology	London, UK
2013-present	Visiting Professor	Glasgow Caledonian University	Glasgow, UK
2016-present	Adjunct Professor	New England College of Optometry	Boston, MA, USA

Professional Societies

1994-	Association for Research in Vision and Ophthalmology	member
2002-	Vision Sciences Society	member
1995-	Optical Society of America	member
1995-	Applied Vision Association	member

Grant Review Activities

2003- present	The Wellcome Trust, UK	ad hoc reviewer
2008- present	National Sciences Foundation, USA	ad hoc reviewer
2007- present	Biotechnical and Biological Sciences Research Council, UK	ad hoc reviewer

2007- present	Medical Research Council, UK	ad hoc reviewer
2010- present	Royal College of Optometrists, UK	post graduate scholarships reviewer
2012- present	Research Grants Council, Hong Kong	external reviewer
2012 - present	Qatar National Research Fund	external reviewer
2012- present	Italian Ministry of Health	external reviewer
2013	National Institute of Health, USA	Visual Processing and Low Vision study section member
2013	Department of Veterans Affairs, USA	Sensory Systems and Communication Disorders study section member
2014	National Institute of Health, USA	Low Vision Special Emphasis Panel, study section member
2015	National Institute of Health, USA	Small Business Innovation Research study section member
2015	National Institute of Health, USA	Clinical and Visual Neurosciences, study section member
2016	Canadian National Science and engineering Research Council	External Fellowship Reviewer
2016	Australian National Health and medical Research Council	External Grant Reviewer

Editorial Activities

Ad hoc reviewer:

Nature, Current Biology, Proceedings of the National Academy of Sciences, Investigative Ophthalmology and Visual Science, Journal of Vision, Vision Research, Perception and Psychophysics, Journal of the Optical Society of America A, Trends in Cognitive Sciences, Perception, Proceedings of the Royal Society of London, Frontiers in Perception Science, Optometry and Vision Science, Ophthalmic and Physiological Optics, Psychological Review, Psychological Science, IEEE Transactions on Image Processing, PLoSOne, Developmental Science, Journal of Neuroscience, Visual Neuroscience, Quarterly Journal of Experimental Psychology, British Journal of Ophthalmology, American Journal of Ophthalmology, Current Eye Research, Nature Scientific Reports.

Editing

2013-	Perception and iPerception	Editor
2012-	PLoSOne	Editor
2009-2010	Perception and Psychophysics	Consultant editor
2010-2016	Frontiers in Perception Science	Editor
2005	Investigative Ophthalmology and Visual Science	Guest editor

Local Invited Presentations

Sep 1996	Department of Psychology, Harvard University, Boston, Mass, USA
Nov 2005	Department of Psychology, Brandeis University, USA
Nov 2005	The Schepens Eye Research Institute, Boston, USA
Feb 2007	Department of Vision Science, Harvard University, Boston, Mass, USA
Mar 2007	Department of Psychology, Northeastern University, Boston, Mass, USA
Dec 2007	Brain and Cognitive Sciences Massachusetts Institute of Technology, Boston, USA

Feb 2008 Department of Neurology, Biomedical Engineering and Neuroscience, Boston University, Boston, USA
 Sep 2010 Brigham and Women's Hospital, Boston, MA
 Feb 2011 Brain and Cognitive Sciences Massachusetts Institute of Technology, Boston, USA
 Nov 2011 New England College of Optometry, Boston, MA
 Nov 2011 Bertarelli Symposium, Harvard Medical School
 Sep 2012 Radcliffe Symposium, Harvard University
 Apr 2013 Faculty Retreat, Department of Ophthalmology, Harvard Medical School
 May 2013 Visual Attention Lab, Brigham and Women's Hospital, Boston, MA
 Jun 2013 Museum of Science, Boston
 Jan 2014 Cornea and Optics Center of Excellence, Mass Eye and Ear, Boston, USA
 Nov 2014 New England College of Optometry, Boston, MA
 Nov 2015 New England College of Optometry, Boston, MA

Invited Presentations and Courses

National

Sep 2000 Centre for Visual Science, University of Rochester, Rochester, NY, USA
 Nov 2005 Centre for Visual Science, University of Rochester, Rochester, NY, USA
 Dec 2008 Invited Speaker Fall Vision Meeting, Optical Society of America
 Jan 2013 Dept of Ophthalmology, University of Alabama at Birmingham, USA
 Sep 2013 Centre for Visual Science, University of Rochester, Rochester, NY, USA
 Oct 2013 Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD, USA
 Aug 2014 Department of Psychology, University of Texas at Austin, Austin, TX, USA
 May 2015 LASKER Institute, Woods Hole, MA, USA
 Nov 2015 Department of Psychology, Brown University, Providence, RI, USA
 Feb 2016 Department of Optometry, UC Berkeley, San Francisco, CA, USA
 Sep 2016 Department of Optometry, Ohio State University, Columbus, OH, USA

International

Apr 1998 Department of Optometry, Glasgow Caledonian University, Glasgow, UK
 Sep 1998 Department of Physiology, University of Utrecht, the Netherlands
 Mar 1999 Department of Physiology, Cambridge University, Cambridge, UK
 May 2000 Department of Optometry, City University, London, UK
 Oct 2001 Department of Optometry and Neuroscience, UMIST, Manchester, UK
 Dec 2002 Applied Vision Association, invited speaker, Birmingham, UK
 Feb 2003 Optometry and Vision Sciences Department, Aston University, Birmingham, UK
 Nov 2003 Department of Psychology, University College London, London, UK
 Jan 2004 Department of Psychology, Royal Holloway University, London, UK
 Oct 2004 Centre for Vision Research, York University, Toronto, Canada
 Jan 2005 Department of Psychology, Giessen University, Germany
 Nov 2005 Department of Optometry, Bradford University, Bradford, UK
 Mar 2006 Department of Physiology, Sydney University, Australia
 Nov 2011 Department of Optometry and Vision Sciences, Glasgow Caledonian University, UK
 Jul 2012 Institute of Psychology, Jilin University, Changchung, China
 Dec 2012 Keynote Speaker, Kongsberg Vision Meeting, Norway
 Oct 2012 Dept of Psychology, Neuroscience & Behaviour, McMaster University, Canada
 Oct 2013 Shenzhen University Hospital, Guangzhou Province, China

Oct 2013 Department of Psychology, Hong Kong University, HK
Nov 2013 Department of Optometry and Vision Sciences Glasgow Caledonian University, UK
Nov 2013 Institute of Ophthalmology, University College London, UK
Feb 2014 Department of Psychology, University of Cardiff, UK
Mar 2014 Department of Psychology, Lausanne Polytechnic University, Switzerland
Nov 2014 Beibu Gulf Optometry and Vision Forum, an Ning, Guangxi Province, China

Report of Technological and Other Scientific Innovations

2007 BBC Radio 4 interview ([listen](#))
2008 Royal National Institute for the Blind's Insight Radio interview ([listen](#))
2010-present Museum of Science, Boston. Multiple Permanent Exhibits in Hall of Human Life
Dec 2013 Wall Street Journal [commentary](#)
Feb 2014 EyeNet magazine [commentary](#)

Patents

Filed:

2013 Rapid Measurement of Visual Sensitivity - Lesmes, Lu, Dorr and Bex
WO2013170091 A1, PCT/US2013/040434
2012 Measuring Information Acquisition Using Free Recall - Woods, Saunders and Bex
WO2014043149 A1, PCT/US2013/059109
2013 Spatial Modelling of Visual Fields - Elze, Benner, Bex
WO2015027225 A1, PCT/US2014/052414
2015 Prevention and treatment of myopia- Maiello, Vera-Diaz, Bex
WO2015027218 A1, PCT/US2014/052398
2015 Assessment Methods for Inter-ocular Suppression - Kwon, Dakin, Wiecek, Bex
2015 Adaptive Scheduling of Clinical Assessments – Bex, Elze and Ackermann

Report of Scholarship

Awards

2011 Research to Prevent Blindness: Special Research Scholar Award \$75,000
2013 Harvard Medical School: Young Mentor of the Year

Publications

Peer reviewed publications in print or other media

1. Bex PJ, Brady N, Fredericksen RE, Hess RF. Energetic motion detection. *Nature*. 1995;378(6558):670–2.
2. Bex PJ, Edgar GK. Shifts in the perceived location of a blurred edge increase with contrast I. *Perception & Psychophysics*. 1995;57(8):1187–9.
3. Bex PJ, Edgar GK, Smith AT. Multiple Images Appear When Motion Energy Detection Fails. *Journal of Experimental Psychology: Human Perception and Performance*. 1995;21:231–238.
4. Bex PJ, Edgar GK, Smith AT. Sharpening of drifting, blurred images. *Vision Research*. 1995;35(18):2539–46.

5. Bex PJ, Edgar GK. Shifts in the perceived location of a blurred edge increase with contrast II. *Perception & Psychophysics*. 1996;58(1):31–3.
6. Bex PJ, Verstraten FA, Mareschal I. Temporal and spatial frequency tuning of the flicker motion aftereffect. *Vision Research*. 1996;36(17):2721–7.
7. Hammett ST, Bex PJ. Motion sharpening: evidence for the addition of high spatial frequencies to the effective neural image. *Vision Research*. 1996;36(17):2729–33.
8. Bex PJ, Baker CL. The effects of distractor elements on direction discrimination in random Gabor kinematograms. *Vision Research*. 1997;37(13):1761–1767.
9. Bex PJ, Makous W. Radial motion looks faster. *Vision Research*. 1997;37(23):3399–405.
10. Brady N, Bex PJ, Fredericksen RE. Independent coding across spatial scales in moving fractal images. *Vision Research*. 1997;37(14):1873–83.
11. Fredericksen RE, Bex PJ, Verstraten FA. How big is a Gabor patch, and why should we care? *Journal of the Optical Society of America*. 1997;14(1):1–12.
12. Hess RF, Demanins R, Bex PJ. A reduced motion aftereffect in strabismic amblyopia. *Vision Research*. 1997;37(10):1303–1311.
13. Mareschal I, Ashida H, Bex PJ, Nishida S, Verstraten FA. Linking lower and higher stages of motion processing? *Vision Research*. 1997;37(13):1755–9.
14. Bex PJ, Metha AB, Makous W. Psychophysical evidence for a functional hierarchy of motion processing mechanisms. *Journal of the Optical Society of America*. 1998;15(4):769–76.
15. Hess RF, Bex PJ, Fredericksen ER, Brady N. Is human motion detection subserved by a single or multiple channel mechanism? *Vision Research*. 1998;38(2):259–66.
16. Bex PJ. Apparent speed and speed sensitivity during adaptation to motion. *Journal of the Optical Society of America*. 1999;16(12):2817–2824.
17. Bex PJ, Baker CL. Motion perception over long interstimulus intervals. *Perception & Psychophysics*. 1999;61(6):1066–74.
18. Bex PJ, Metha AB, Makous W. Enhanced motion aftereffect for complex motions. *Vision Research*. 1999;39(13):2229–38.
19. Bex PJ, Simmers AJ, Dakin SC. Snakes and ladders: the role of temporal modulation in visual contour integration. *Vision Research*. 2001;41(27):3775–82.
20. Dakin SC, Bex PJ. Local and global visual grouping: tuning for spatial frequency and contrast. *Journal of Vision*. 2001;1(2):99–111.
21. Simmers AJ, Bex PJ. Deficit of visual contour integration in dyslexia. *Investigative Ophthalmology and Visual Science*. 2001;42(11):2737–42.
22. Simmers AJ, Bex PJ, Smith FK, Wilkins AJ. Spatiotemporal visual function in tinted lens wearers. *Investigative Ophthalmology and Visual Science*. 2001;42(3):879–84.
23. Bex PJ, Dakin SC. Comparison of the spatial-frequency selectivity of local and global motion detectors. *Journal of the Optical Society of America*. 2002;19(4):670–7.
24. Bex PJ, Makous W. Spatial frequency, phase, and the contrast of natural images. *Journal of the Optical Society of America*. 2002;19(6):1096–106.
25. Dakin SC, Bex PJ. Role of synchrony in contour binding: some transient doubts sustained. *Journal of the Optical Society of America*. 2002;19(4):678–86.
26. Dakin SC, Bex PJ. Summation of concentric orientation structure: seeing the Glass or the window? *Vision Research*. 2002;42(16):2013–20.
27. Bex PJ, Dakin SC. Motion detection and the coincidence of structure at high and low spatial frequencies. *Vision Research*. 2003;43(4):371–83.

28. Bex PJ, Dakin SC, Simmers AJ. The shape and size of crowding for moving targets. *Vision Research*. 2003;43(27):2895–904.
29. Bex PJ, Simmers AJ, Dakin SC. Grouping local directional signals into moving contours. *Vision Research*. 2003;43(20):2141–53.
30. Dakin SC, Bex PJ. Response to Wilson & Wilkinson: Evidence For Global Processing but No Evidence for Specialised Detectors in the Visual Processing of Glass Patterns. *Vision Research*. 2003;43(3):565–566.
31. Dakin SC, Bex PJ. Natural image statistics mediate brightness “filling in.” *Proceedings of The Royal Society of London B*. 2003;270(1531):2341–2348.
32. Fiser J, Bex PJ, Makous W. Contrast conservation in human vision. *Vision Research*. 2003;43(25):2637–48.
33. Hess RF, Pointer JS, Simmers A, Bex P. Border distinctness in amblyopia. *Vision Research*. 2003;43(21):2255–64.
34. Simmers AJ, Bex PJ, Hess RF. Perceived blur in amblyopia. *Investigative Ophthalmology and Visual Science*. 2003;44(3):1395–400.
35. Simmers AJ, Bex PJ. The representation of global spatial structure in amblyopia. *Vision Research*. 2004;44(5):523–33.
36. Bex PJ, Dakin SC. Spatial interference among moving targets. *Vision Research*. 2005;45(11):1385–98.
37. Bex PJ, Dakin SC, Mareschal I. Critical band masking in optic flow. *Network: Computation in Neural Systems*. 2005;16(2-3):261–84.
38. Dakin SC, Mareschal I, Bex PJ. An oblique effect for local motion: psychophysics and natural movie statistics. *Journal of Vision*. 2005;5(10):878–87.
39. Dakin SC, Mareschal I, Bex PJ. Local and global limitations on direction integration assessed using equivalent noise analysis. *Vision Research*. 2005;45(24):3027–49.
40. Bex PJ, Falkenberg HK. Resolution of complex motion detectors in the central and peripheral visual field. *Journal of the Optical Society of America*. 2006;23(7):1598–607.
41. Mareschal I, Dakin SC, Bex PJ. Dynamic properties of orientation discrimination assessed by using classification images. *Proceedings of the National Academy of Sciences of the United States of America*. 2006;103(13):5131–6.
42. Bex PJ, Langley K. The perception of suprathreshold contrast and fast adaptive filtering. *Journal of Vision*. 2007;7(12:1):1–23.
43. Bex PJ, Dakin SC, Mareschal I. Contrast Gain Control in Natural Scenes. *Journal of Vision*. 2007;7(11):12, 1–12.
44. Crossland MD, Dakin SC, Bex PJ. Illusory stimuli can be used to identify retinal blind spots. *PLoS ONE*. 2007;2(10):e1060.
45. Falkenberg HK, Bex PJ. Contextual modulation of the motion aftereffect. *Journal of Experimental Psychology: Human Perception & Performance*. 2007;33(2):257–270.
46. Falkenberg HK, Rubin GS, Bex PJ. Acuity, crowding, reading and fixation stability. *Vision Research*. 2007;47(1):126–35.
47. Langley K, Bex PJ. Contrast adaptation implies two spatiotemporal channels but three adapting processes. *Journal of Experimental Psychology: Human Perception & Performance*. 2007;33(6):1283–96.
48. Falkenberg HK, Bex PJ. Sources of Motion-Sensitivity Loss in Glaucoma. *Investigative Ophthalmology & Visual Science*. 2007;48(6):2913–2921.

49. Crossland MD, Bex PJ. The twinkle aftereffect is pre-cortical and is independent of filling-in. *Journal of Vision*. 2008;8(11):13 1–10.
50. Mareschal I, Bex P, Dakin S. Local motion processing limits fine direction discrimination in the periphery. *Vision Research*. 2008;48(16):1719–1725.
51. Bex PJ, Solomon SG, Dakin SC. Contrast sensitivity in natural scenes depends on edge as well as spatial frequency structure. *Journal of Vision*. 2009;9(10):1 1–19.
52. Cass J, Alais D, Spehar B, Bex PJ. Temporal whitening: transient noise perceptually equalizes the 1/f temporal amplitude spectrum. *Journal of Vision*. 2009;9(10):12 1–19.
53. Cass J, Stuit S, Bex P, Alais D. Orientation bandwidths are invariant across spatiotemporal frequency after isotropic components are removed. *Journal of Vision*. 2009;9(12):17 1–14.
54. Crossland MD, Bex PJ. Spatial alignment over retinal scotomas. *Investigative Ophthalmology and Visual Science*. 2009;50(3):1464–9.
55. Dakin SC, Bex PJ, Cass JR, Watt RJ. Dissociable effects of attention and crowding on orientation averaging. *Journal of Vision*. 2009;9(11):28 1–16.
56. Greenwood JA, Bex PJ, Dakin SC. Positional averaging explains crowding with letter-like stimuli. *Proceedings of the National Academy of Sciences USA*. 2009;106(31):13130–5.
57. Kane D, Bex PJ, Dakin SC. The aperture problem in contoured stimuli. *Journal of Vision*. 2009;9(10):13 1–17.
58. Bex PJ. (In) Sensitivity to spatial distortion in natural scenes. *Journal of Vision*. 2010;10(2):1–15.
59. Dakin SC, Cass J, Greenwood JA, Bex PJ. Probabilistic, positional averaging predicts object-level crowding effects with letter-like stimuli. *Journal of Vision*. 2010;10(10):1–16.
60. Greenwood JA, Bex PJ, Dakin SC. Crowding Changes Appearance. *Current Biology*. 2010;20:496–501.
61. Murray S, Bex PJ. Perceived Blur in Naturally Contoured Images Depends on Phase. *Front. Psychology*. 2010;1.p 185
62. Dakin SC, Greenwood JA, Carlson TA, Bex PJ. Crowding is tuned for perceived (not physical) location. *Journal of Vision*. 2011;11(9).
63. Dorr M, Bex PJ. A gaze-contingent display to study contrast sensitivity under natural viewing conditions. Available at: http://spie.org/x648.html?product_id=872502.
64. Kane D, Bex P, Dakin S. Quantifying “the aperture problem” for judgments of motion direction in natural scenes. *Journal of Vision*. 2011;11(3).
65. Wallis TSA, Bex PJ. Visual Crowding is Correlated with Appearance. *Current Biology*. 2011;21(3):254–258.
66. McIlreavy L, Fiser J, Bex PJ. Impact of Artificial Central Visual Impairment on Visual Search in Natural Scenes. *Optometry And Vision Science*. 2012, 89 (9) 1385-1394.
67. Wallis TSA, Bex PJ. Image correlates of crowding in natural scenes. *Journal of Vision*. 2012;12(7).
68. Greenwood JA, Bex PJ, Dakin SC. Crowding Follows the Binding of Relative Position and Orientation. *Journal of Vision*. 2012;12(3).
69. Wardle SG, Bex PJ, Cass J, Alais D. Stereoacuity in the Periphery Is Limited by Internal Noise. *Journal of Vision*. 2012;12(6).
70. Cass, J., Johnson, A., Bex, P. J., Alais, D. Orientation-specificity of adaptation: isotropic adaptation is purely monocular. *PLoS ONE*. 2012;7 (11) e47425.

71. Greenwood JA, Taylor, V. K., Sloper JJ, Simmers, AJ, Bex, PJ, Dakin, SC. Visual acuity, crowding, and stereo-vision are linked in children with and without amblyopia. *Investigative Ophthalmology and Visual Science*. 2012; 53(12):7655-7665.
72. Wiecek E, Jackson M, Dakin SC, Bex PJ. Visual Search with Image Modification in Age-Related Macular Degeneration. *Investigative Ophthalmology and Visual Science*. 2012; 53 (1) 6600-6609.
73. Wiecek E, Pasquale L, Fiser J, Dakin SC, Bex PJ. Effects of Peripheral Visual Field Loss on Eye Movements during Visual Search. *Frontiers in Psychology*. 2012 (3) 472, 1-13.
74. Dorr M, Bex PJ. Peri-Saccadic Natural Vision. *Journal of Neuroscience*. 2013;33(3):1211–1217.
75. Lesmes LA, Jackson M, Bex PJ. Visual Function Endpoints to Enable Dry AMD Clinical Trials. *Drug Discovery Today: Therapeutic Strategies*. 2014; in press.
76. Pelli, D. Bex PJ. Measuring Contrast Sensitivity. *Vision Research*. 2013; 90, 10-14.
77. D. R. Saunders, P. J. Bex, and R. L. Woods, “Crowdsourcing a normative natural language dataset: A comparison of Mechanical Turk and in-lab data collection,” *Journal of Medical Internet Research*, 2013, May 20;15(5):e100. doi: 10.2196/jmir.2620.
78. T. Elze, C. P. Taylor, and P. J. Bex, “An evaluation of organic light emitting diode monitors for medical applications: great timing, but luminance artifacts,” *Medical Physics*, 2013; 40(9), 092701.
79. L.G. Bogfjellmo, P. J. Bex and H. K. Falkenberg, “Reduction in direction discrimination with age and slow speed is due to both increased internal noise and reduced sampling efficiency,” *Investigative Ophthalmology and Visual Science*, 2013; 54 (8) 5204-5210.
80. M. Jackson, P. J. Bex, J. Ellison, P. Wicks, and J. Wallis, “Feasibility of a Web-based Survey of Hallucinations and Assessment of Visual Function in Patients with Parkinson’s Disease,” *Interactive Journal of Medical Research*, 2013, 3(1): e1. doi: 10.2196/ijmr.2744..
81. Dorr M, Lesmes LA, Lu ZL, Bex PJ. Rapid and precise contrast sensitivity assessment on a tablet device. *Investigative Ophthalmology and Visual Science*. 2013; 54, 7266-7273.
82. Wallis TSA, Taylor CP, Wallis J, Jackson M, Bex PJ. Characterisation of field loss based on microperimetry is predictive of face recognition difficulties. *Investigative Ophthalmology and Visual Science*. 2014; 55(1):142–153.
- 83 L.G. Bogfjellmo, P. J. Bex and H. K. Falkenberg, “The Development of Global Motion Discrimination in School Aged Children” *Journal of Vision*, 2014; 2 (19) 1-12.
84. D. R. Saunders, P. J. Bex, and R. L. Woods, “Measuring Information Acquisition from Sensory Input Using Automated Scoring of Natural Language Descriptions,” *PLoSOne*, 2014; 9, (4) e93251.
85. A. Kalia, L. A. Lesmes, M. Dorr, T. Gandhi, G. Chatterjee, P. J. Bex, and P. Sinha, “Contrast Sensitivity Development After Extended Congenital Blindness,” *Proceedings of the National Academy of Sciences*, 2014; 4;111(5):2035-9.
86. C. Bauer, G. Heidary, B. Koo, P. J. Bex, and L. Merabet, “Characterization of White Matter Tractography in Cortical Visual Impairment using High Angular Resolution Diffusion Imaging (HARDI),” *Journal of the American Association for Pediatric Ophthalmology and Strabismus*, in press, 2014.
87. G. T. Feke, P. J. Bex, C. P. Taylor, D. J. Rhee, A. V. Turalba, T. C. Chen, M. Wand, and L. R. Pasquale, “Effect of Brimonidine on Retinal Vascular Autoregulation and Short-Term Visual Function in Normal Tension Glaucoma”. *Journal of Ophthalmology*, 158 (1), 105-112, 2014.

88. Harrison, WJ. and Bex PJ. "Integrating Retinotopic Features in Spatiotopic Coordinates". *Journal of Neuroscience*, 34 (21) 7351-7360, 2014.
89. Kwon, M., Lu, ZL., Miller, A., Kazlas, M., Lesmes, L. Hunter, D. and Bex, P.J. Assessing Binocular Interaction in Amblyopia and Its Clinical Feasibility, *PLoSOne*, 9(6) e100156, 2014.
90. Maiello, G. Chessa, M. Solari, F. and Bex, PJ. Simulated Disparity and Peripheral Blur Interact During Binocular Fusion. *Journal of Vision*, 2014; 14 (8): 13:1-14.
91. Wiecek, E. K. Lashkari, S. C. Dakin, and P. J. Bex, "Metamorphopsia and Interocular Suppression in Monocular and Binocular Retinopathy," *Acta Ophthalmologia*, in press 2014.
92. Wiecek E, Lashkari K, Dakin SC and Bex PJ. "A Statistical Analysis of Metamorphopsia in 7106 Amsler Grids" *JAMA Ophthalmology*, 2015, 122, 431-433.
93. Wiecek, E. K, Dakin, S. C. and Bex, P. J. "Metamorphopsia and Acuity" *Journal of Vision*, 2014; 14(4)1: 1-10.
94. Elze, T., Pasquale, L. R., Shen, L. Q, and Bex, P.J. "Patterns of Visual Field Loss in Clinical Glaucoma Testing" *Journal of the Royal Society Interface*, 2015, 12 (103).
95. Wiecek E, Lashkari K, Dakin SC and Bex PJ. "Novel Quantitative Assessment of Metamorphopsia in Retinopathy" *Investigative Ophthalmology and Visual Science*, 2014, 56(1) 494-504.
96. Taylor, C. P. and Bex, P.J. "On the number of perceivable blur levels in naturalistic images" *Vision Research* 115, 142-150, 2015.
97. Hou, F., Lesmes, L.L., Bex, P.J., Dorr, M and Lu, Z.L. "Using 10AFC to further improve the efficiency of quick CSF" *Journal of Vision* 15(9):2, 2015
98. Christensen, J. H., Bex P. J. and Fiser, J. 'Prior implicit knowledge shapes human thresholds for orientation noise' *Journal of Vision*, 15(9):24, 2015
99. Wallis, T.S.A., Dorr, M. and Bex P. J. 'Sensitivity to gaze-contingent contrast increments in naturalistic movies: An exploratory report and model comparison' *Journal of Vision*, 2015, 15(8):3, 1-33.
100. Miller, P. A., Wallis, G., Bex, P. J., and Arnold, D. Reducing the size of the human physiological blind spot through training. *Current Biology* 25(17):R747-748 2015
101. Piano, M., Bex, P.J. and Simmers A. J., "Perceptual visual distortions in adult amblyopia and their relationship to clinical features," *Investigative Ophthalmology and Visual Science*, 56, 5533-5542 2015.
102. Maiello, G., Chessa, M., Solari, F., and Bex, P. J. (2015). The (In)Effectiveness of Simulated Blur for Depth Perception in Naturalistic Images. *PLOS ONE*, 10(10), e0140230.
103. Harrison, WJ. and Bex PJ. (2015) "A unifying model of orientation crowding in peripheral vision". *Current Biology*, 25 (24) 3213-3219.
104. Kwon, M., Wiecek, E., Dakin, S. and Bex, P. J. (2015) "Spatial-frequency dependent binocular imbalance in amblyopia" *Nature Scientific Reports* 5, 17181
105. Harrison, WJ. and Bex PJ. (2016) "Ungrouping Overcrowded Explanations of Visual Crowding". *Current Biology*, 26 (9) R353-354.
106. Gibaldi, A., Vanegas, M., Bex, P. J. and Maiello, G. (2016) "Evaluation of the Tobii Eye X Eye Tracking Controller and Matlab Toolkit for Research" *Behavioral Research Methods and Instrumentation* 1-24.
107. Chessa, M., Maiello, G., Bex, P.J. and Solari, F. (2016) "A Space-Invariant Model for Motion Interpolation Across the Visual Field". *Journal of Vision*, in press.
108. Sinha, P., Bex, P.J., Kjelgaard, M. and Phillips, F. (2016) "Enhancing Research with Plenary Labs." *Science and Public Policy*, in press.

109. Kerber, K. L., Thorn, F., Bex, P. J. and Vera-Diaz, F. A. (2016) “Peripheral Contrast sensitivity and Attention in Myopia.” *Vision Research* 125, 49-54.
110. Piano, M., Bex, P.J. and Simmers A. J., “Perceived visual distortions in juvenile amblyopes during/following routine amblyopia treatment,” *Investigative Ophthalmology and Visual Science*, in press.
111. Sophie Cai, S., Elze, T., Bex, P. J., Wiggs, J. L., Pasquale, L. R. and Shen, L. Q. (2016) “Clinical Correlates of Computationally Derived Visual Field Defect Archetypes in Patients from a Glaucoma Clinic *Current Eye Research*, in press
112. Maiello, G., Harrison, WJ. and Bex PJ. ‘Monocular and Binocular Contributions to Oculomotor Plasticity’ (2016) *Scientific Reports*, in press

Books, Book Chapters, Review Articles

1. Edgar GK, Bex PJ. Vision and Displays. In: Carr K, England R, eds. *Simulated and Virtual Realities: Elements of Perception*. London UK: Taylor and Francis; 1995:85–101.
2. Bex PJ. Contrast Sensitivity. In: *Encyclopedia of the Eye*. Academic Press; 2010.
3. Besharse, J., Dana, R., Dartt, D. A., Battelle, B., Beebe, D., Bex, P., Bishop, P., Bok, D., D’Amore, P., Edelhauser, H., Mcloon, L., Niederkorn, J., Reh, T. and Tamm, E. (2010). *Encyclopedia of the Eye*, (1st ed.). Academic Press.
4. Dartt DA, Bex P, D’Amore P, et al. *Ocular Periphery and Disorders*. 1st ed. Academic Press; 2011.
5. Verstraten FAJ, Bex PJ. The motion aftereffect. In: *Oxford Compendium of Visual Illusions*. Oxford University Press; 2013.
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Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings

2011

- [1] P. J. Bex, L. Pasquale, and S. C. Dakin, “Glaucoma patients demonstrate elevated neural noise in sectors of the Humphrey Visual Field with normal threshold sensitivity,” presented at the Association for Research in Vision and Ophthalmology, 2011.
- [2] Bogfjellmo, H. K. Falkenberg, and P. J. Bex, “How does directional noise limit global sensitivity in ageing?,” presented at the European Conference on Visual Perception, 2011.
- [3] J. Cass, S. C. Dakin, and P. J. Bex, “Dichoptic suppression of flanking stimuli breaks crowding,” presented at the European Conference on Visual Perception, 2011, p. 35.
- [4] M. Dorr and P. J. Bex, “A gaze-contingent display to study contrast sensitivity under natural viewing conditions,” presented at the Human Vision and Electronic Imaging XVI, 2011.
- [5] M. Dorr and P. J. Bex, “Natural vision is geotopic,” presented at the European Conference on Visual Perception, Toulouse, 2011, vol. 40, p. 29.
- [6] M. Dorr and P. Bex, “Peri-Saccadic Visual Sensitivity while Freely-Viewing Natural Movies,” presented at the Vision Sciences Society, 2011, vol. 11, p. 517.
- [7] H. Galperin, D. Lisitsyn, P. Bex, and J. Fiser, “Perception of Motion in Natural Scenes,” presented at the Vision Sciences Society, 2011, vol. 11, p. 725.
- [8] J. Greenwood, V. Tailor, A. Simmers, J. Sloper, G. Rubin, P. Bex, and S. Dakin, “Links between acuity, crowding and binocularity in children with and without amblyopia,” presented at the Association for Research in Vision and Ophthalmology, 2011, vol. 11, p. 405.

[9] L. A. Lesmes, T. S. A. Wallis, and P. Bex, "Response bias contributes to visual field anisotropies for crowding in natural scenes," presented at the Vision Sciences Society, 2011, vol. 11, p. 1156.

[10] N. Schneider, P. J. Bex, E. Barth, and M. Dorr, "An open-source low-cost eye-tracking system for portable real-time and offline tracking," presented at the Novel Gaze-Controlled Applications, 2011.

[11] G. Selig, D. Lisitsyn, P. Bex, and J. Fiser, "The diagnostic features used for recognizing faces under natural conditions," presented at the Vision Sciences Society, 2011, vol. 11, p. 614.

[12] C. Taylor and P. Bex, "Efficient integration of local perceived blur in discrimination and matching," presented at the Vision Sciences Society, 2011, vol. 11, p. 13.

[13] T. Wallis and P. Bex, "Image Correlates of Peripheral Contour Discrimination in Natural Scenes," presented at the Vision Sciences Society, 2011, vol. 11, p. 62.

[14] E. Wiecek, L. Pasquale, and P. J. Bex, "Effects of peripheral visual field loss on eye movements during visual search," presented at the Association for Research in Vision and Ophthalmology, 2011.

2012

[1] S. F. Abscar, D. Cyr, A. D. Proia, M. T. Malik, P. J. Bex, and K. Lashkari, "Identifying the Roles of Interferon-Gamma Inducible Chemokines in Progression of Age-related Macular Degeneration (AMD).," presented at the Association for Research in Vision and Ophthalmology, 2012.

[2] L. Bogfjellmo, H. Falkenberg, and P. J. Bex, "Global motion perception at low speed is reduced due to increased internal noise and reduced sampling efficiency in young, mid-aged and old observers," presented at the European Conference on Visual Perception, Sardinia, Italy, 2012.

[3] M. Dorr, L. A. Lesmes, L. To, and P. J. Bex, "High-precision psychophysics on the iPad," presented at the European Conference on Visual Perception, Sardinia, Italy, 2012.

[4] T. Elze, C. P. Taylor, and P. J. Bex, "Organic Light-Emitting Diode Monitors in Vision Science," presented at the European Conference on Visual Perception, 2012.

[5] T. Elze and P. J. Bex, "Modern Display Technology in Vision Science: Assessment of OLED and LCD Monitors for Visual Experiments," presented at the Asia Pacific Vision Conference, 2012.

[6] A. Kalia, L. A. Lesmes, M. Dorr, P. J. Bex, T. Gandhi, G. Chatterjee, and P. Sinha, "Measurements of Contrast Sensitivity Functions Show Recovery from Extended Blindness," presented at the European Conference on Visual Perception, 2012.

[7] L. A. Lesmes, J. Wallis, M. Jackson, and P. J. Bex, "Clinical Application Of A Novel Contrast Sensitivity Test To A Low Vision Population: The Quick CSF Method," presented at the Association for Research in Vision and Ophthalmology, 2012.

[8] M. Piano, A. J. Simmers, and P. J. Bex, "Assessment of global distortion and perceptual magnification in amblyopia," presented at the British Congress of Optometry and Visual Science, Bradford, 2012.

[9] D. R. Saunders, P. J. Bex, and R. L. Woods, "A Novel, Objective Measure of Information Acquisition from Video is Correlated with Blur.," presented at the Association for Research in Vision and Ophthalmology, 2012.

[10] J. Wallis, P. J. Bex, L. A. Lesmes, T. S. A. Wallis, and M. Jackson, "Contrast Sensitivity As A Predictor Of Central Field Loss," presented at the Association for Research in Vision and Ophthalmology, 2012.

- [11] T. S. A. Wallis, M. Dorr, and P. J. Bex, "Sensitivity to gaze-contingent spatial distortions in freely-viewed movies," presented at the European Conference on Visual Perception, Sardinia, Italy, 2012.
- [12] S. G. Wardle, P. J. Bex, J. R. Cass, and D. Alais, "Stereoacuity across the visual field: An equivalent noise analysis," presented at the European Conference on Visual Perception, 2012.
- [13] E. Wiecek, S. C. Dakin, and P. J. Bex, "Metamorphopsia and Visual Acuity," presented at the European Conference on Visual Perception, 2012.
- [14] E. Wiecek, M. Jackson, and P. J. Bex, "Visual Search with Image Enhancements in Age-Related Macular Degeneration," presented at the Association for Research in Vision and Ophthalmology, 2012.
- [15] R. L. Woods, P. J. Bex, and D. R. Saunders, "Free Recall as an Objective Measure of Information Acquisition from Video.," presented at the Association for Research in Vision and Ophthalmology, 2012.

2013

- [1] P. J. Bex, "Motion perception in ocular disease and visual dysfunction," presented at the Association for Research in Vision and Ophthalmology, Seattle, 2013.
- [2] M. Bossi, E. J. Anderson, V. K. Taylor, P. J. Bex, J. A. Greenwood, A. Dahlmann-noor, and S. C. Dakin, "A novel home--based binocular therapy for childhood anisometropic amblyopia," presented at the British Congress of Optometry and Vision Science, Glasgow, UK, 2013.
- [3] Y. Chee, T. Elze, L. Pasquale, D. Rhee, P. J. Bex, and L. Shen, "Deviation between horizontal and vertical SD-OCT macular thickness values and associated scan errors," presented at the Association for Research in Vision and Ophthalmology, 2013.
- [4] X. Chen, L. A. Lesmes, J. Wallis, T. S. A. Wallis, M. Jackson, and P. J. Bex, "Analyses of contrast sensitivity assessments over time: A pilot study," presented at the Association for Research in Vision and Ophthalmology, Seattle, 2013.
- [5] M. Dorr, L. A. Lesmes, Z. L. Lu, and P. J. Bex, "Rapid and precise assessment of the temporal contrast sensitivity function on an iPad," presented at the European Conference on Visual Perception, 2013.
- [6] M. Dorr, L. A. Lesmes, Z. L. Lu, and P. J. Bex, "iPad-Based Quick CSF Implementation to Assess Effects of Dioptric Blur on Contrast Sensitivity," presented at the Association for Research in Vision and Ophthalmology, 2013.
- [7] M. Dorr, A. Schutz, K. Gegenfurtner, E. Barth, and P. J. Bex, "Eye movements in natural movies under spatio-temporal blur," presented at the European Conference on Eye Movements, 2013.
- [8] T. Elze, P. Benner, and P. J. Bex, "Novel Approaches to Non-parametric Adaptive Sampling of Psychometric Functions," presented at the Asia Pacific Conference on Vision, Suzhou, China, 2013.
- [9] T. Elze, P. Benner, L. Pasquale, L. Shen, and P. J. Bex, "A Spatial Model of Visual Fields with Applications to Adaptive Sampling," presented at the European Conference on Visual Perception, Bremen, 2013.
- [10] T. Elze, L. Pasquale, L. Shen, A. Turalba, T. Chen, D. Rhee, J. Wiggs, C. L. Grosskreutz, S. Brauner, and P. J. Bex, "Patterns in Glaucomatous Visual Field Loss: Components, Prototypes and Archetypes," presented at the 7th Annual Office for Research Career Development, 2013.
- [11] T. Elze, L. Pasquale, L. Shen, A. Turalba, T. C. Chen, D. Rhee, J. L. Wiggs, C. L. Grosskreutz, S. Brauner, and P. J. Bex, "Finding Patterns in Glaucomatous Visual Field Loss:

- Components, Prototypes, and Archetypes,” presented at the Association for Research in Vision and Ophthalmology, Seattle, 2013.
- [12] W. J. Harrison, Kwon, M., and P. J. Bex, “The influence of eye movements on contrast sensitivity and gain response in peripheral vision,” presented at the European Conference on Visual Perception, Bremen, 2013.
- [13] M. Jackson, J. Wallis, P. Wicks, and P. J. Bex, “Online Assessment of Contrast Sensitivity and Hallucinations in Parkinson’s Disease,” presented at the Association for Research in Vision and Ophthalmology, Seattle, 2013.
- [14] M. Y. Kwon, L. A. Lesmes, A. Miller, M. Kazlas, M. Dorr, D. G. Hunter,, Z. L. Lu, and P. J. Bex, “Rapid assessment of core visual deficits in amblyopia,” presented at the Association for Research in Vision and Ophthalmology, 2013.
- [15] Kwon, M., L. A. Lesmes, M. Kazlas, D. G. Hunter,, Z. L. Lu, and P. J. Bex, “Novel methods to assess core visual deficits in amblyopia,” presented at the New England Ophthalmological Society Meeting, 2013.
- [16] Kwon, M., L. A. Lesmes, A. Miller, M. Kazlas, M. Dorr, D. G. Hunter,, Z. L. Lu, and P. J. Bex, “Contrast sensitivity deficits in amblyopia,” presented at the European Conference on Visual Perception, 2013.
- [17] Kwon, M., L. A. Lesmes, A. Miller, M. Kazlas, D. G. Hunter,, Z. L. Lu, and P. J. Bex, “The effect of interocular luminance differences on eye movements in amblyopia and normal vision,” presented at the European Conference on Eye Movements, 2013.
- [18] L. A. Lesmes, M. Jackson, J. Wallis, and P. J. Bex, “The Reliability of the quick CSF Method for Contrast Sensitivity Assessment in Low Vision,” presented at the Association for Research in Vision and Ophthalmology, 2013.
- [19] G. Maiello, C. Manuella, S. Fabio, and P. J. Bex, “Stereoscopic fusion with gaze-contingent blur,” presented at the European Conference on Visual Perception, 2013.
- [20] G. Maiello, C. Manuella, S. Fabio, and P. J. Bex, “The Contribution of Perspective, Blur and Disparity to Depth Perception in Natural Vision,” presented at the Association for Research in Vision and Ophthalmology, 2013.
- [21] M. Piano, A. J. Simmers, and P. J. Bex, “The character of monocular and binocular perceptual visual distortions in adult amblyopia,” presented at the British Congress of Optometry and Vision Science, Glasgow, UK, 2013.
- [22] M. Piano, A. J. Simmers, P. J. Bex, and S. Jeon, “Perceptual visual distortions in amblyopia and their stability over time,” presented at the European Conference on Visual Perception, Bremen, 2013.
- [23] D. R. Saunders, P. J. Bex, and R. L. Woods, “Measuring information acquisition during viewing of dynamic scenes using free, natural-language descriptions,” presented at the Vision Sciences Society, Naples, FL, 2013.
- [24] J. A. Solomon, P. J. Bex, and S. C. Dakin, “Sampling Efficiency and Internal Noise for Summary Statistics,” presented at the European Conference on Visual Perception, 2013.
- [25] T. S. A. Wallis, M. Dorr, and P. J. Bex, “The contrast response function of the human visual system to freely-viewed natural movies,” presented at the European Conference on Visual Perception, Bremen, 2013.
- [26] R. S. Watson, R. Legge, A. J. Simmers, and P. J. Bex, “Illusory Figure Perception in Amblyopes,” presented at the British Congress of Optometry and Vision Science, Glasgow, UK, 2013.

[27] E. Wiecek, S. C. Dakin, K. Lashkari, and P. J. Bex, "Qualitative and Quantitative Assessment of Metamorphopsia in Retinopathy Patients," presented at the Association for Research in Vision and Ophthalmology, 2013.

2014

[1] M. Bossi, E. J. Anderson, V. K. Taylor, P. J. Bex, J. A. Greenwood, A. Dahmann-noor, and S. C. Dakin, "An Exploratory Study of a Novel Home-Based Binocular Therapy for Childhood Amblyopia," presented at the Association for Research in Vision and Ophthalmology, 2014.

[2] T. Elze, P. Benner, L. Shen, and P. J. Bex, "The Spatial Configuration of Visual Field Measurement Locations in Glaucoma," presented at the Association for Research in Vision and Ophthalmology, 2014.

[3] W. J. Harrison and P. J. Bex, "Contour perception across time and eye movements," presented at the Vision Sciences Society, 2014.

[4] M. Y. Kwon, E. Wiecek, S. C. Dakin, and P. J. Bex, "A novel method to quantify spatial-frequency dependent binocular imbalance in amblyopia," presented at the Vision Sciences Society, 2014.

[5] G. Maiello, W. Harrison, and P. J. Bex, "Dichoptic saccadic adaptation," presented at the Vision Sciences Society, 2014.

[6] G. McCormack, J. Van Cura, and P. J. Bex, "Neural Sharpening of Images Moving in Stereoscopic Depth," presented at the Association for Research in Vision and Ophthalmology, 2014.

[7] T. Olsen, T. Langaas, P. J. Bex, S. J. Gilson, and R. C. Baraas, "The effect of Omega-3 status on contrast sensitivity in healthy middle-aged Norwegians," presented at the Association for Research in Vision and Ophthalmology, 2014.

[8] M. Piano, A. J. Simmers, and P. J. Bex, "Perceptual Visual Distortions in Juvenile Amblyopes," presented at the Vision Sciences Society, 2014.

[9] R. L. Woods, D. R. Saunders, P. J. Bex, and D. Rose, "Measuring information acquisition to evaluate impairment and rehabilitation," presented at the Low Vision 2014, Melbourne, 2014.

[10] L.-G. Bogfjellmo, P. J. Bex, and H. K. Falkenberg, "Direction discrimination of global motion low contrast patterns in school aged children," presented at the Association for Research in Vision and Ophthalmology, 2014.

[11] W. J. Harrison, G. Maiello and P. J. Bex, "Illusory objects are altered by saccadic eye movement preparation" to be presented at the Society for Neuroscience, 2014.

[12] T. S. A. Wallis, M. Dorr, and P. J. Bex, "A Bayesian multilevel modeling approach to characterizing contrast sensitivity in naturalistic movies" to be presented at the European Mathematical Psychology Conference, 2014.

[13] Cai, S., Elze, T., Bex, P. J., Pasquale, L., & Shen, L. (2014). Clinical Significance of Computationally Derived Glaucomatous Visual Field Defects.

[14] Bex, P. J., "Efficient Assessment of Contrast Sensitivity in Clinical Populations". Keynote Beibu Gulf Optometry and Vision Forum (2014).

2015

[1] P. J. Bex, "The Impact of Simulated Central Scotomas on Perception and Eye Movements," presented at the Association for Research in Vision and Ophthalmology, Denver, 2015.

[2] W. Harrison, M.A. Johnson and P. J. Bex, "Attentional resolution is not the exclusive limit on visual awareness," presented at the Vision Sciences Society, 2015.

[3] G. Maiello, W. Harrison, F. Vera-Diaz and P. J. Bex, "Perceptual Consequences of Elongated Eyes," presented at the Vision Sciences Society, 2015.

- [4] Ayeni, A. J., W. Harrison and P. J. Bex, “Filling in of Kanizsa-style illusory figures is under top-down control,” presented at the Vision Sciences Society, 2015.
- [5] Rose, D. and P. J. Bex, “Peripheral Oculomotor Control Training in Healthy Individuals: Effects of Training and Training Transfer,” presented at the Vision Sciences Society, 2015.
- [6] P.J. Bex, A.J. Ayeni and E. Wiecek, “Word and Sentence Level Spatial Information In Reading,” presented at the Vision Sciences Society, 2014.
- [7] E. Wiecek, and Bex, P. J. “Binocular Microperimetry in Simulated Asymmetric Bilateral Scotomas,” presented at the Association for Research in Vision and Ophthalmology, 2015.
- [8] Alberti, C. and Bex, P. J. “Simulation of binocular scotoma and compensatory strategies,” presented at the Association for Research in Vision and Ophthalmology, 2015.
- [9] M. Dorr, Lesmes, L.A.L., Elze, T., Wang, H., Lu, Z. L. and P. J. Bex, “Average Precision as a test-retest reliability measure: a quick CSF study on myopia” presented at the Association for Research in Vision and Ophthalmology, 2015.
- [10] Kerber, K.L., Maiello, G., Thorn, F., Bex, P.J., Vera-Diaz, F.A., “Myopes’ ability to accurately accommodate to blur cues in virtual 3D images” presented at the Association for Research in Vision and Ophthalmology, 2015.
- [11] Vera-Diaz, F.A., Maiello, G., Kerber, K.L., Thorn, F. and Bex, P.J., “Myopes’ ability to discriminate and detect blur” presented at the Association for Research in Vision and Ophthalmology, 2015.
- [12] Elze, T., Jin, Q., Wollstein, G., Bex, P., “The impact of blood vessel locations on abnormality profiles of Spectral-Domain Optical Coherence Tomography measurements” presented at the Association for Research in Vision and Ophthalmology, 2015.
- [13] Jin, Q., Wollstein, G., Pasquale, L., Shen, L., Bex, P. J., Elze, T. “Motion artifacts and missing data in Spectral-Domain Optical Coherence Tomography measurements” presented at the Association for Research in Vision and Ophthalmology, 2015.
- [14] Dorr, M., Wiecek, E., Lashkari, K., Lu, Z. L., Lesmes, L. A., & Bex, P. J. (2015). “Comprehensive mHealth assessment of visual function”. Presented at the German Society for Biomedical Engineering. Lübeck.
- [15] Cai, S., Elze, T., Bex, P.J., Wiggs, J.L., Pasquale, L.R., Shen, L.Q., (2015) “Clinical Correlates of Computationally Derived Visual Field Defect Archetypes in Patients from a Glaucoma Clinic”. Harvard Medical School Annual Conference.
- [16] Harrison, W. J. and Bex, P. J. (2015) “A unifying model of visual crowding” presented at the European Conference of Visual Perception.
- [17] Vera-Diaz, F. Weifenback, S., Kwon, M. & Bex, P. J. (2015) “Novel Methods to Clinically Quantify Suppression and Stereopsis Thresholds in Studies of Amblyopia”, presented at the American Academy of Optometry, New Orleans.
- [18] Dakin, S., Bex, P. J. & Turnbull, P. (2015) “Automated Contrast Sensitivity Assessment using the OKN”. Presented at the American Academy of Optometry, New Orleans.
- [19] Weifenback, S., Kwon, M. Vera-Diaz, F. & Bex, P. J. (2015) “Methods to quantify spatial frequency dependent suppression and stereopsis”. Presented at the American Academy of Optometry, New Orleans.
- [20] M. Dorr, M. Wille, T. Viulet, E. Sanchez, P. Bex, Lu, Z., L. Lesmes (2015) “Next-generation vision testing: the quick CSF” presented at the German Society for Biomedical Engineering, Lübeck, Germany.

[21] Bex, P.J. Wiecek, E., Dakin, S.C. and Kwon (2015) “Quantitative Assessment of Inter-Ocular Suppression” presented at the Lasker/IRRF Initiative on Amblyopia, J. Erik Jonsson Center, Woods Hole, Massachusetts

2016

[1] Assessing Suppression in Amblyopia with a Dichoptic Eyechart. Eileen E. Birch, Sarah E. Morale, Reed M. Jost, Angie De La Cruz, Krista R. Kelly, Yi-Zhong Wang, Peter J. Bex. Presented at the American Association for Pediatric Ophthalmology and Strabismus meeting, Vancouver BC, Canada

[2] Myopes’ Ability to Perceive Blur Across the Visual Field. Walker, L., Maiello, G. Bex, P.J. and Vera-Diaz, F. A. Presented at the Association for Research in Vision and Ophthalmology, 2016.

[3] Comparison of iPad-Based Visual Function Tests for the Detection of Early Manifest Glaucoma Meredith, K., Aiai R., Bex, P., Gardiner, M., Kloek, C., Chang, P., Shen, L., Turalba, A., Pasquale, L.R. and Song, B. Presented at the Association for Research in Vision and Ophthalmology, 2016.

[4] Transfer of Peripheral Fixation Training Across Retinal Eccentricities, Rose, D. and Bex, P.J. Presented at the Vision Sciences Society, 2016.

[5] What color was it? Probing the dynamics of word processing during reading, Kosovicheva, A. and Bex, P.J. Presented at the Vision Sciences Society, 2016.

[6] Myopic Eyes See Better in a Crowd, Carroll, S., Maiello, G., Harrison, W. and Bex, P.J. Presented at the Vision Sciences Society, 2016.

[7] The effect of ametropia on glaucomatous visual field loss, Elze, T., Shen, L.Q., Wang, M., Boland, M.V., Wellick, S., de Moraes, G., Myers, J., Bex, P. J. and Pasquale, L. R. Presented at the Association for Research in Vision and Ophthalmology, 2016.

[8] Impact of natural blind spot location on perimetry. , Wang, M., Pasquale, L. R. Shen, L.Q., Boland, M.V., Wellick, S., de Moraes, G., Myers, J., Bex, P. J. and Elze, T., Presented at the Association for Research in Vision and Ophthalmology, 2016.

[9] 3 Dimensional Binocular eye and hand coordination in normal vision and with simulated visual impairments Maiello, G., Kwon, M.Y. and Bex P.J. Presented at the Vision Sciences Society, 2016.

[10] Home-Based Self-Assessment of the Contrast Sensitivity Function in Age-Related Macular Degeneration Bex, P. J., Dorr, M., Lashkari, K., Lesmes, L., Lu, Z.L. and Wiecek, E. Presented at the Association for Research in Vision and Ophthalmology, 2016.

[11] Characterizing monocular and binocular contrast sensitivity in corrected and uncorrected myopia Hui, W., Lesmes, L., Dorr, M., Lu, Z.L., Elze, T. and Bex, P. J. Presented at the Association for Research in Vision and Ophthalmology, 2016.

[12] A Survey of Contrast Sensitivity Deficits in Visual Neuropathology. Lesmes, L., Lu, Z.L., Bex, P. J. and Dorr, M., Presented at the Association for Research in Vision and Ophthalmology, 2016.

[13] Quantifying Positional Variation of Retinal Blood Vessels in Glaucoma. Wang, M, Jin, Q, Wang, H, Pasquale, L, Bex, P, Ishikawa, H, Schuman, J, Wollstein, G, Elze, T. Presented at the Association for Research in Vision and Ophthalmology, 2016.

[14] The effect of optic nerve head torsion and position of retinal blood vessels on optical coherence tomography (OCT) retinal nerve fiber layer (RNFL) abnormality patterns in myopic glaucoma patients. Baniyadi, N, Jin, Q, Wang, H, Wang, M, Shen, L, Pasquale, L, Bex, P,

Ishikawa, H, Schuman, J, Wollstein, G, Elze, T. Presented at the Association for Research in Vision and Ophthalmology, 2016.

[15] Modelling Short-Latency Disparity-Vergence Eye Movements Under Dichoptic Unbalanced Stimulation, Gibaldi, A., Maiello, G., Bex, P. and Sabatini, S. Presented at at the MODVIS Workshop, Vision Sciences Society 2016

[16] Can Neuromorphic Computer Vision Inform Vision Science? Disparity Estimation as a Case Study, Maiello, G., Chessa, M. Bex, P. and Solari, F. Presented at the MODVIS Workshop, Vision Sciences Society 2016

[17] Vergence Eye Movements to Unbalanced Dichoptic Visual Stimuli, Guido Maiello, Agostino Gibaldi, Silvio P Sabatini, Peter J Bex, to be presented at the European Conference on Visual Perception 2016

[18] Mechanisms underlying simultaneous brightness induction: Early and innate Sarah Crucilla, Dylan Rose, Amy Kalia, Peter Bex, Pawan Sinha, to be presented at the European Conference on Visual Perception 2016.