



Linda Lanyon PhD CPC ELI-MP CEng Academic Publications

Refereed book chapters

- **Lanyon LJ** (2011) Diffusion Tensor Imaging: Structural Connectivity Insights, Limitations & Future Directions. Invited chapter in *Neuroimaging – Methods*. Ed: Prof. Peter Bright. Vienna, Austria: InTech. ISBN: 978-953-51-0097-3, doi: 10.5772/23245.
- **Lanyon LJ** & Denham SL (2005) A model of spatial & object-based attention for active visual search. *Modelling Language, Cognition and Action: Proceedings of the 9th Neural Computation & Psychology Workshop*. Eds: A Cangelosi, G Bugmann, R Borisyuk. **World Scientific, Progress in Neural Processing**, 16, 239-248
- **Lanyon LJ** & Denham SL (2004) A model of active visual search with object-based attention guiding scan paths. ***Vision and Brain: How the Brain Sees / New Approaches to Computer Vision***. Eds: S Grossberg, L Finkel, D Field. Elsevier

Academic Journal papers

Pedagogy & Education

- Grisham W, Brumberg JC, Gilbert T, **Lanyon L**, Williams RW, Olivo R. (2017) Teaching with Big Data: Report from the 2016 Society for Neuroscience Teaching Workshop. ***J Undergraduate Neuroscience Education***, 16(1):A68-A76
- Grisham W, Lom B, **Lanyon L**, Lamos R. (2016) Proposed Training to Meet Challenges of Large-Scale Data in Neuroscience. ***Frontiers in Neuroinformatics***, 10:28. doi: 10.3389/fninf.2016.00028 (duplicate entry under neuroinformatics)
- **Lanyon L** & Hubball H (2008) Gender considerations and innovative learning-centred assessment practices. ***Transformative Dialogues: Teaching and Learning Journal***, 2(1)
 - outreach article **Lanyon L** (2008) "Recognising Our True Selves: Gender Differences in Self-Assessment", Society for Canadian Women in Science and Technology

Computational Cognitive Neuroscience

- **Lanyon L** & Barton J (2013) Visual search and line bisection in hemianopia: computational modelling of cortical compensatory mechanisms and comparison with hemineglect. ***PLoS ONE***, 8(2): e54919. doi:10.1371/journal.pone.0054919
- **Lanyon, LJ** & Denham SL (2010) Modelling Visual Neglect: Insights into Conscious Perception. ***PLoS ONE***, 5(6): e11128. doi:10.1371/journal.pone.0011128
- **Lanyon LJ** & Denham SL (2009) Modelling attention in individual cells leads to a system with realistic saccade behaviours. ***Cognitive Neurodynamics***, 3(3):223-42
- **Lanyon LJ** & Denham SL (2005) A model of object-based attention that guides active visual search to behaviourally relevant locations. ***Lecture Notes in Computer Science, Special Issue: WAPCV2004 (L Paletta et al., Eds)***, 3368: 42-56
- **Lanyon LJ** & Denham, SL (2005) A model of spatial & object-based attention for active visual search. *Modelling Language, Cognition and Action: Proceedings of the 9th Neural*



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Computation & Psychology Workshop. World Scientific, Progress in Neural Processing, 16, 239-248

- **Lanyon LJ** & Denham SL (2004) A biased competition computational model of spatial and object-based attention mediating active visual search. *Neurocomputing, Special Issue: Computational Neuroscience: Trends in Research 2004* (edited by E De Schutter), 58-60C: 655-662
- **Lanyon LJ** & Denham SL (2004) A model of active visual search with object-based attention guiding scan paths. *Neural Networks, Special Issue: Vision & Brain*, 17(5-6): 873-897

Neuroimaging

- Davies-Thompson J, Scheel M, **Lanyon LJ**, Barton JJS (2013) Functional organisation of visual pathways in a patient with no optic chiasm. *Neuropsychologia*, 51(7): 1260-72. doi: 10.1016/j.neuropsychologia.2013.03.014
- Scheel M*, Abegg M*, **Lanyon L**, Mattman A, Barton JJS. (2010) Eye movement and diffusion tensor imaging analysis of treatment effects in Niemann-Pick Type C patient. *Molecular Genetics and Metabolism*, 99(3):291-5
- Scheel M, Abegg M, **Lanyon L**, Barton JJS. (2010) Diffusion Tensor Imaging in adult Niemann Pick patients - Previous work [Response to Walterfang et al. White and gray matter alterations in adults with Niemann-Pick disease type C: A cross-sectional study]. *Neurology*
- **Lanyon LJ**, Au Young S, Fitzpatrick K, Diao L, Bjornson BH, Giaschi D & Barton JJS (2009) Combined functional MRI and diffusion tensor imaging analysis of visual motion pathways. *Journal of Neuro-Ophthalmology*, 29(2):96-103
- Iaria G, **Lanyon LJ**, Fox CJ, Giaschi D & Barton JJ (2008) Navigational skills correlate with hippocampal fractional anisotropy in humans. *Hippocampus*, 18(4): 335-9

Behavioural Neuroscience, including Eye Movement Recording

- Sharp M, **Lanyon LJ**, Viswanathan J & Barton JJS (2012) Perception of expected value during decision-making: reward probability biases prospect choice. *PLoS ONE*, 7(4):e33460. doi: 10.1371/journal.pone.0033460
- Grewel P, Viswanathan J, Barton JJS & **Lanyon LJ** (2012) Line bisection under and attentional gradient induced by simulated neglect in healthy subjects. *Neuropsychologia*, 50(6):1190-201. doi: 10.1016/j.neuropsychologia.2011.11.010
- Ross M, **Lanyon LJ**, Viswanathan J, Manoach D & Barton JJS (2011) Human Prosaccades and antisaccades under risk: effects of penalties & rewards on visual selection & action value. *Neuroscience*, 196:168-77 doi: 10.1016/j.neuroscience.2011.08.006
- Malcolm GL, **Lanyon LJ**, Fugard AJB & Barton JJS (2008) Scan patterns during the processing of facial expression versus identity: An exploration of task-driven and stimulus-driven effects. *Journal of Vision*, 8(8):2, 1-9, <http://journalofvision.org/8/8/2/>, doi:10.1167/8.8.2
- Busigny T, Barton JJS, **Lanyon J**, Rossion B Face-superiority context effect in a simple line orientation detection task. *Journal of Vision*, 13(9): 1258



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- Jone A, Viswanathan J, **Lanyon LJ** & Barton JJS Human Saccade amplitude modification by explicit and implicit reinforcement.

Neuroinformatics

- Abrams, M.B. et al. (2021) A Standards Organization for Open and FAIR Neuroscience: the International Neuroinformatics Coordinating Facility. **Neuroinformatics** doi : <https://doi.org/10.1007/s12021-020-09509-0>
- International Brain Initiative (2020) International Brain Initiative (IBI): An innovative framework for coordinated global brain research efforts, **Neuron NeuroView** doi : <https://doi.org/10.1016/j.neuron.2020.01.002>
- Steyerberg EW et al. (2019) Case-mix, care pathways, and outcomes in patients with traumatic brain injury in CENTER-TBI: a European prospective, multicentre, longitudinal, cohort study. **The Lancet Neurology** 9; 18: 923–34
- Mass A et al. (2017) Traumatic brain injury – integrated approaches to improve prevention, clinical care, and research. **The Lancet Neurology**, Commission, 16:12
- Shenkin S et al (2017) Improving data banking in healthy subjects: practice-based suggestions from an international multidisciplinary working group. **Neuroimage**, 153:399-409. doi: 10.1016/j.neuroimage.2017.02.030
- Eglen S et al. (2016) Towards standard practices for sharing computer code and programs in Neuroscience. **Nature Neuroscience** commentary. 20(6):770-773. doi: 10.1038/nn.4550
- **Lanyon L** & Ledmyr H (2016) Neuroscience through collaboration. **Pan European Networks : Science & Technology**, 21
- Grisham W, Lom B, **Lanyon L**, Lamos R. (2016) Proposed Training to Meet Challenges of Large-Scale Data in Neuroscience. **Frontiers in Neuroinformatics**, 10:28. doi: 10.3389/fninf.2016.00028
- Crossen MC et al. (2016) Variation in Structure and Process of Care in Traumatic Brain Injury: Provider Profiles of European Neurotrauma Centers Participating in the CENTER-TBI Study. **PLOS One**, 11(8): e0161367
- **Lanyon L** & Sandström M (2015) Big data for the brain. **Pan European Networks : Science & Technology**, 17 : 183
- Keator DB et al. (2015). Standardizing Metadata in Brain Imaging. **Frontiers in Neuroscience**. Neuroinformatics 2015. doi: 10.3389/conf.fnins.2015.91.00004
- Mass A et al. (2015) Collaborative European NeuroTrauma Effectiveness Research in Traumatic Brain Injury (CENTER-TBI): A Prospective Longitudinal Observational Study. **Neurosurgery**, 76(1):67-80

Academic Journal abstracts

- Busigny T, Barton JJS, **Lanyon J**, Rossion B (2013) As the nose on your face: face-superiority context effect in a simple line orientation detection task. **Journal of Vision**, (12th Annual Meeting of the Vision Sciences Society)



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- Ross M, **Lanyon LJ**, Viswanathan J, Manoach D & Barton JJS (2012) Prosaccades and antisaccades under risk: penalties, rewards, and their spatial effects. *Journal of Vision*, 11(11): 208 (11th Annual Meeting of the Vision Sciences Society)
- Sharp M, **Lanyon LJ**, Viswanathan J, Barton JJS (2012) Reward probability and magnitude in saccadic decisions under risk: measuring bias and sensitivity to expected value. *Journal of Vision*, 11(11): 210 (11th Annual Meeting of the Vision Sciences Society)
- **Lanyon LJ**, Barton JJS (2010) Why the contralesional hemifield is scanned by patients with hemianopia but not with hemineglect: computational modeling of mechanisms of neural compensation. *Journal of Vision*, 10(7): 279 (10th Annual Meeting of the Vision Sciences Society)
- Sekunova A, Duchaine B, Garrido L, Scheel M, **Lanyon L**, Barton J (2010) The right anterior temporal and right fusiform variants of acquired prosopagnosia. *Journal of Vision*, 10(7): 592 (10th Annual Meeting of the Vision Sciences Society)
- **Lanyon LJ**, Scheel M, Fox CJ, Iaria G, Barton, JJS (2009) Disconnection of cortical face network in prosopagnosia revealed by diffusion tensor imaging. *Journal of Vision*, 9(8):482a, <http://journalofvision.org/9/8/482/>, doi:10.1167/9.8.482. (9th Annual Meeting of the Vision Sciences Society)
- Scheel M, **Lanyon L**, Giaschi D, Barton JJS (2009) The organization of inter-hemispheric projections from areas 17 and 18 in the human splenium. *Journal of Vision*, 9(8):772a, <http://journalofvision.org/9/8/772/>, doi:10.1167/9.8.772. (9th Annual Meeting of the Vision Sciences Society)
- **Lanyon L** & Denham S (2007). Parietal lesion leading to hemineglect and reduced extrastriate activity in a computational model of visual attention. *Journal of Vision*, 7(9):952a, <http://journalofvision.org/7/9/952/> (7th Annual Meeting of the Vision Sciences Society)
- Malcolm GL, **Lanyon L** & Barton JJS (2007) Scanning fixations during processing of facial expression versus identity: an exploration of top-down and bottom-up effects. *Journal of Vision*, 7(9):942a, <http://www.journalofvision.org/8/8/2/> (7th Annual Meeting of the Vision Sciences Society)
- **Lanyon LJ** & Denham SL (2003) A biased competition computational model of spatial and object-based attention mediating active visual search. *Journal of Vision*, 3(9):570a: <http://journalofvision.org/3/9/570/> (3rd Annual Meeting of the Vision Sciences Society)

Strategic Plans & Reports

- **Lanyon L** et al. (2019) INCF Review Report 2016 – 2019
- **Lanyon L** (2015) INCF Strategic Plan 2016 – 2020
- **Lanyon L** et al. (2014) INCF Review Report 2010 – 2014
- Management oversight & co-author: INCF Annual Reports 2013-2019
<https://incf.org/about/core-documents>
- Presentation of INCF annual financial report and forecasts to Governing Board 2013-2019
- Co-author, SCWIST reports 2008-11



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Academic Publications

Workshop Reports from the International Neuroinformatics Coordinating Facility

- **Lanyon L** (2012) INCF Canadian Neuroinformatics Workshop: A satellite symposium of the CAN2012 Meeting. F1000 <https://doi.org/10.7490/f1000research.1116002.1>
- Bolyn J, **Lanyon L** (2012) 1st INCF workshop on the Development of a Community-Based Neuroscience Encyclopedia. F1000 <https://doi.org/10.7490/f1000research.1116000.1>
- **Lanyon L**, Abrams M (2013) INCF Program on Multiscale Modelling Workshop: From Cellular/Network Models to Tissue Simulation. F1000 <https://doi.org/10.7490/f1000research.1116031.1>

In addition to the academic publications listed, I have extensive experience writing and editing many types of documents, such as scientific grants and promotional materials, in the science & technology domains.