

Cathy Wyse - Publications

18th October 2022

1. Tully, L., Arthurs, N., **Wyse, C.**, Browne, S., Case, L., McCrea, L., O’Connell, J.M., O’Gorman, C.S., Smith, S.M., Walsh, A., *et al.* Guidelines for Treating Child and Adolescent Obesity: A Systematic Review. *Front. Nutr.* In press.
2. **Wyse, C.A.**, Clarke, A.C., Nordon, E.A., Murtagh, C., Keogh, A.A., and Lopez, L.M. (2022). Susceptibility to the common cold virus is associated with day length. *iScience* 25, 104789.
3. Sangha, N., Lyall, L., **Wyse, C.A.**, Cullen, B., Whalley, H.C., and Smith, D.J. (2022). The nosological status of unipolar mania and hypomania within UK Biobank according to objective and subjective measures of diurnal rest and activity. *Bipolar Disord.* In press.
4. **Wyse, C.A.**, Case, L., Walsh, Ó., Shortall, C., Jordan, N., McCrea, L., and O’Malley, G. (2022). Evaluating 12 Years of Implementing a Multidisciplinary Specialist Child and Adolescent Obesity Treatment Service: Patient-Level Outcomes. *Front. Nutr.* 9, 895091.
5. **Wyse, C.A.**, O’Malley, G., Coogan, A.N., McConkey, S., and Smith, D.J. (2021). Seasonal and daytime variation in multiple immune parameters in humans: Evidence from 329,261 participants of the UK Biobank cohort. *iScience* 24, 102255.
6. Howard, J., **Wyse, C.A.**, Argyle, D., Quinn, C., Kelly, P., and McCann, A. (2020). Exosomes as biomarkers of human and feline mammary tumours; a comparative medicine approach to unravelling the aggressiveness of TNBC. *Biochim. Biophys. Acta (BBA)-Reviews Cancer* 1874, 188431.
7. Lyall, L.M., Sangha, N., **Wyse, C.A.**, Hindle, E., Haughton, D., Campbell, K., Brown, J., Moore, L., Simpson, S.A., Inchley, J.C., *et al.* (2020). Accelerometry-assessed sleep duration and timing in late childhood and adolescence in Scottish schoolchildren: A feasibility study. *PLoS One* 15, e0242080.
8. Goh, C.Y., **Wyse, C.A.**, Ho, M., O’Beirne, E., Howard, J., Lindsay, S., Kelly, P., Higgins, M., and McCann, A. (2020). Exosomes in triple negative breast cancer: Garbage disposals or Trojan horses? *Cancer Lett.* 473, 90–97.
9. Lyall, L., Ferguson, A., Strawbridge, R., Ward, J., **Wyse, C.A.**, Lyall, D., Cullen, B., Graham, N., Johnston, K., Mackay, D., *et al.* (2019). Associations between polygenic risk for low circadian amplitude and risk taking behaviour and brain structure in the UK Biobank cohort. *Eur. Neuropsychopharmacol.* 29, S1306-S1307.
10. MQ Data Science group (2019). How data science can advance mental health research. *Nat. Hum. Behav.* 3, 24–32.
11. **Wyse, C.A.**, Celis Morales, C.A., Ward, J., Lyall, D., Smith, D.J., Mackay, D., Curtis, A.M., Bailey, M.E.S., Biello, S., Gill, J.M.R., *et al.* (2018). Population-level seasonality in cardiovascular mortality, blood pressure, BMI and inflammatory cells in UK Biobank. *Ann. Med.* 50, 410-419.

12. Ferguson, A., Lyall, L.M., Ward, J., Strawbridge, R.J., Cullen, B., Graham, N., Niedzwiedz, C.L., Johnston, K.J.A., MacKay, D., Biello, S.M., Pell, J.P., Cavanagh, J., McIntosh, A.M., Doherty, A., Bailey, M.E., Lyall, D.M., **Wyse, C.A.**, Smith, D.J. (2018). Genome-Wide Association Study of Circadian Rhythmicity in 71,500 UK Biobank Participants and Polygenic Association with Mood Instability. *EBioMedicine* 35, 279–287.
13. Burri, L., **Wyse, C.A.**, Gray, S.R., Harris, W.S., and Lazzerini, K. (2018). Effects of dietary supplementation with krill meal on serum pro-inflammatory markers after the Iditarod sled dog race. *Res. Vet. Sci.* 121, 18–22.
14. Early, J.O., Menon, D., **Wyse, C.A.**, Cervantes-Silva, M.P., Zaslona, Z., Carroll, R.G., Palsson-McDermott, E.M., Angiari, S., Ryan, D.G., Corcoran, S.E., *et al.* (2018). Circadian clock protein BMAL1 regulates IL-1 β in macrophages via NRF2. *Proc. Natl. Acad. Sci.* 115, E8460-E8468.
15. Lyall, L.M.,* **Wyse, C.A.**,* Graham, N., Ferguson, A., Lyall, D.M., Cullen, B., Celis Morales, C.A., Biello, S.M., Mackay, D., Ward, J., *et al.* (2018). Association of disrupted circadian rhythmicity with mood disorders, subjective wellbeing, and cognitive function: a cross-sectional study of 91,105 participants from the UK Biobank. *The Lancet Psychiatry* 5,507-514. *joint first authors.
16. **Wyse, C.A.**, Zhang, X., McLaughlin, M., Biello, S.M., Hough, D., Bellingham, M., Curtis, A.M., Robinson, J.E., and Evans, N.P. (2018). Circadian rhythms of melatonin and behaviour in juvenile sheep in field conditions: Effects of photoperiod, environment and weaning. *Physiol. Behav.* 194, 362-370.
17. Lyall, L.M., **Wyse, C.A.**, Celis-Morales, C.A., Lyall, D.M., Cullen, B., Mackay, D., Ward, J., Graham, N., Strawbridge, R.J., Gill, J.M.R., *et al.* (2018). Seasonality of depressive symptoms in women but not in men: A cross-sectional study in the UK Biobank cohort. *J Affect Disord* 229, 296–305.
18. Boakye, D., **Wyse, C.A.**, Morales-Celis, C.A., Biello, S.M., Bailey, M.E.S., Dare, S., Ward, J., Gill, J.M.R., Pell, J.P., and Mackay, D.F. (2018). Tobacco exposure and sleep disturbance in 498,208 UK Biobank participants. *J. Public Health.* 40, 517–526.
19. Ku Mohd Noor, K.M., **Wyse, C.A.**, Roy, L.A., Biello, S.M., McCabe, C., and Dewar, D. (2017). Chronic photoperiod disruption does not increase vulnerability to focal cerebral ischemia in young normotensive rats. *J. Cereb. Blood Flow Metab.* 37, 3580-3588.
20. **Wyse, C.A.**, Celis Morales, C.A., Graham, N., Fan, Y., Ward, J., Curtis, A.M., Mackay, D., Smith, D.J., Bailey, M.E., Biello, S., *et al.* (2017). Adverse metabolic and mental health outcomes associated with shiftwork in a population-based study of 277,168 workers in UK Biobank. *Ann Med.* 49, 411-420.
21. Dardente, H., **Wyse, C.A.**, Lincoln, G.A., Wagner, G.C., and Hazlerigg, D.G. (2016). Effects of photoperiod extension on clock gene and neuropeptide RNA expression in the SCN of the Soay Sheep. *PLoS One* 11, e0159201.
22. Bae, S.-E., Wright, I.K., **Wyse, C.A.**, Samson-Desvignes, N., Le Blanc, P., Laroche, S., Hazlerigg, D.G., and Johnston, J.D. (2014). Regulation of pituitary MT1 melatonin receptor expression by gonadotrophin-releasing hormone (GnRH) and early growth response factor-1 (Egr-1): *In vivo* and *in vitro* studies. *PLoS One.* 9, e90056.
23. **Wyse, C.A.**, Biello, S.M., and Gill, J.M. (2014). The bright-nights and dim-days of the urban photoperiod: implications for circadian rhythmicity, metabolism and obesity. *Ann. Med.* 46, 253–263.

24. Lees, E.K., Król, E., Grant, L., Shearer, K., **Wyse, C.A.**, Moncur, E., Bykowska, A.S., Mody, N., Gettys, T.W., and Delibegovic, M. (2014). Methionine restriction restores a younger metabolic phenotype in adult mice with alterations in fibroblast growth factor 21. *Aging Cell.* 3, 817-27.
25. Hazlerigg, D.G., **Wyse, C.A.**, Dardente, H., Hanon, E.A., and Lincoln, G.A. (2013). Photoperiodic variation in CD45-positive cells and cell proliferation in the mediobasal hypothalamus of the Soay sheep. *Chronobiol Int* 30, 548–558.
26. **Wyse, C.A.** (2012). Does human evolution in different latitudes influence susceptibility to obesity via the circadian pacemaker?: migration and survival of the fittest in the modern age of lifestyle-induced circadian desynchrony. *Bioessays* 34, 921–924.
27. **Wyse, C.A.**, **Selman, C.A.**, Page, M.M., Coogan, A.N., and Hazlerigg, D.G. (2011). Circadian desynchrony and metabolic dysfunction; did light pollution make us fat? *Med. Hypotheses* 77, 1139.
28. **Wyse, C.A.**, and Coogan, A.N. (2010). Impact of aging on diurnal expression patterns of CLOCK and BMAL1 in the mouse brain. *Brain Res.* 1337, 21.
29. Silva, S., **Wyse, C.A.**, Goodfellow, M.R., Yam, P.S., Preston, T., Papasouliotis, K., and Hall, E.J. (2010). Assessment of liver function in dogs using the ¹³C-galactose breath test. *Vet. J.* 185,152-6.
30. Dardente, H., **Wyse, C.A.**, Birnie, M.J., Dupré, S.M., Loudon, A.S.I., Lincoln, G.A., and Hazlerigg, D.G. (2010). A molecular switch for photoperiod responsiveness in mammals. *Curr. Biol.* 20, 2193-8.
31. **Wyse, C.A.**, Coogan, A.N., Selman, C., Hazlerigg, D.G., and Speakman, J.R. (2010). Association between mammalian lifespan and circadian free-running period: the circadian resonance hypothesis revisited. *Biol. Lett.* 6, 696.
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33. **Wyse, C.A.**, and Hazlerigg, D. (2009). Seasonal Biology: Avian Photoreception Goes Deep. *Curr. Biol.* 19, R685-7.
34. **Wyse, C.A.**, McNie, K.A., Tannahill, V.J., Murray, J.K., and Love, S. (2008). Prevalence of obesity in riding horses in Scotland. *Vet. Rec.* 162, 590.
35. Coogan, A.N., and **Wyse, C.A.** (2008). Neuroimmunology of the circadian clock. *Brain Res.* 1232, 104-12
36. **Wyse, C.A.**, Marshall, W.G., Preston, T., and Yam, P.S. (2007). Retention of acetaminophen in an *in vitro* model of solid-phase gastric emptying of animals. *Am. J. Vet. Res.* 68, 895-8.
37. Mills, C.A., Beeley, J., **Wyse, C.A.**, Cumming, D.R.S., Glidle, A., and Cooper, J.M. (2007). Polymer-based micro-sensor paired arrays for the determination of primary alcohol vapors. *Sensors Actuators, B Chem.* 125.
38. Johannessen, E.A., Wang, L., **Wyse, C.A.**, Cumming, D.R.S., and Cooper, J.M. (2006). Biocompatibility of a lab-on-a-pill sensor in artificial gastrointestinal environments. *IEEE Trans. Biomed. Eng.* 53, 2333-40.

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41. Love, S., **Wyse, C.A.**, Stirk, A.J., Stear, M.J., Calver, P., Voute, L.C., and Mellor, D.J. (2006). Prevalence, heritability and significance of musculoskeletal conformational traits in Thoroughbred yearlings. *Equine Vet. J.* 38, 597-603.
42. Skeldon, K.D., Gibson, G.M., **Wyse, C.A.**, McMillan, L.C., Monk, S.D., and Padgett, M.J. (2005). Optical technology and biomedical optics-medical optics and biotechnology - Development of high-resolution real-time sub-ppb ethane spectroscopy and some pilot studies in life science. *Appl. Opt.* 44, 4712-4721.
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46. Chalmers, A.F., Kirton, R., **Wyse, C.A.**, Dickie, A., Cumming, D., Cooper, J.M., Preston, T., and Yam, P.S. (2005). Ultrasonographic assessment of the rate of solid-phase gastric emptying in dogs. *Vet. Rec.* 157, 649-52.
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