



Dr Louise Millard
BSc (Goldsmiths), MSc(Bristol), PhD

Vice Chancellor's Fellow

Area of research

Hypothesis-free data mining and automation of epidemiological methods

Office OS1
Oakfield House,
Oakfield Grove, Clifton BS8 2BN

[\(See a map\)](#)

louise.millard@bristol.ac.uk

Summary

Louise Millard is a Vice-Chancellor's Research Fellow in Digital Health and Innovation at the University of Bristol. Following an undergraduate Computer Science degree and MSc in Machine Learning and Data Mining, she completed an interdisciplinary PhD at the interface of Computer Science and Epidemiology. Since then she has continued her interdisciplinary research, developing and applying data mining approaches in Epidemiology, with a focus on analysing time-series data, and hypothesis-free causal inference with Mendelian randomization.

Memberships

Organisations

[Bristol Medical School \(PHS\)](#)

Recent publications

- Millard, L, Davies, N, Tilling, K, Gaunt, T & Smith, GD, 2019, '[Searching for the causal effects of body mass index in over 300 000 participants in UK Biobank, using Mendelian randomization](#)'. *PLoS Genetics*, vol 15.
- Lawlor, D, Lewcock, M, Jones, L, Rollings, C, Yip, V, Smith, D, Pearson, R, Johnson, L, Millard, L, Patel, N, Skinner, A & Tilling, K, 2019, '[The second generation of The Avon Longitudinal Study of Parents and Children \(ALSPAC-G2\): a cohort profile](#)'. *Wellcome Open Research*, vol 4.
- Millard, LA, Davies, NM, Gaunt, TR, Smith, GD & Tilling, K, 2018, '[Software application profile: PHESANT: A tool for performing automated phenome scans in UK Biobank](#)'. *International Journal of Epidemiology*, vol 47., pp. 29-35
- Wootton, R, Lawn, R, Millard, L, Davies, N, Taylor, A, Munafo, M, Timpson, N, Davis, OS, Smith, GD & Haworth, C, 2018, '[Evaluation of the causal effects between subjective wellbeing and cardiometabolic health: mendelian randomisation study](#)'. *BMJ*, vol 362.
- Zheng, J, Richardson, T, Millard, L, Hemani, G, Elsworth, B, Raistrick, C, Vilhjalmsson, B, Neale, BM, Haycock, P, Smith, GD & Gaunt, T, 2018, '[PhenoSpD: an integrated toolkit for phenotypic correlation estimation and multiple testing correction using GWAS summary statistics](#)'. *GigaScience*, vol 7.
- Neaves, S, Tsoka, S & Millard, L, 2018, '[Reactome Pengine: a web-logic API to the Homo sapiens reactome](#)'. *Bioinformatics*, vol 34., pp. 2856-2858
- Millard, LA, Tilling, K, Lawlor, DA, Flach, PA & Gaunt, TR, 2017, '[Physical activity phenotyping with activity bigrams, and their association with BMI](#)'. *International Journal of Epidemiology*, vol 46., pp. 1857-1870
- Millard, LAC, Flach, PA & Higgins, JPT, 2016, '[Machine learning to assist risk of bias assessments in systematic reviews](#)'. *International Journal of Epidemiology*, vol 45., pp. 266-277
- Neaves, S, Millard, L & Tsoka, S, 2016, '[Using ILP to Identify Pathway Activation Patterns in Systems Biology](#)'. in: Katsumi Inoue, Hayato Ohwada, Akihiro Yamamoto (eds) *Inductive Logic Programming: 25th International Conference, ILP 2015, Kyoto, Japan, August 20-22, 2015, Revised Selected Papers*. Springer Verlag, pp. 137-151
- Millard, LAC, Davies, NM, Timpson, NJ, Tilling, KM, Flach, PA & Smith, GD, 2015, '[MR-PheWAS: Hypothesis prioritization among potential causal effects of body mass index on many outcomes, using Mendelian randomization](#)'. *Scientific Reports*, vol 5.

[View complete publications list](#) in the University of Bristol publications system