Chloe Slaney, Ph.D.

Office: MRC Integrative Epidemiology Unit, University of Bristol, Augustine's Courtyard, Orchard Lane, Bristol, BS1 5DS
Email: chloe.slaney@bristol.ac.uk

Education

University of Bristol **2016 – 2021**
PhD Wellcome Trust Neural Dynamics Programme
Supervisors: Professors Emma Robinson, Conor Houghton, Ian Penton-Voak and Marcus Munafò.

University of Nottingham **2015 – 2016**
MRes Mental Health Research: Distinction

University of Durham **2012 – 2015**
BSc (Hons) Psychology: First Class Honours

Post Doctoral Training

University of Bristol **2022 – Present**
Senior Research Associate in Genetic Epidemiology
MRC Integrative Epidemiology Unit, Immunopsychiatry Programme.
Supervisor: Professor Golam Khandaker
Project: Identify biological pathways impacting cognition at different ages in the lifespan using population-based cohorts (e.g., Lifelines, UK Biobank) and omics data (genomics, proteomics, transcriptomics).

University of Bristol **2021 – 2022**
Research Associate in Genetic Epidemiology
MRC Integrative Epidemiology Unit
Supervisors: Professors Golam Khandaker and George Davey Smith
Project: Testing causality between immune proteins and cognition using ALSPAC data.

Research Skills and Experience

- **Programming skills:** R and STATA (postdoctoral experience), Python and JavaScript (PhD)
- **Statistical genetics:** GWAS, meta-analysis, GWAS annotation (e.g., FUMA), Mendelian randomization (summary and individual level), genetic correlations, genetic risk scores, adjustments for relatedness (e.g., GRAMMAR method via GREML, KING to identify genetic relatedness), multiple imputation to address missing data.
- **Population-based cohort data:** analysing cohort data **(**Lifelines, UK Biobank, ALSPAC).
- **Public and patient involvement in research**: workshops/focus groups within and outside UK.
- **Clinical human experiments** (e.g., ethics applications, interviewing, coding experiments, EEG).
- **Open science**: pre-registrations (osf.io/npeja), preprints, code (chloeslaney (chloeslaney) / Repositories · GitHub) and datasets (https://doi.org/10.5523/bris.1wlrhv4jzqs7q2egf8i7ruzta1).

Conference Talks

- **Mendelian Randomization Conference 2024:** Role of inflammation in depressive and anxiety disorders, affect, and cognition: genetic and non-genetic findings in the Lifelines Cohort Study.
- **International Society of Psychoneuroendocrinology 2023 [Invited Speaker]:** Understanding the Causal Relationship Between Inflammation and Cognition: Data from Randomized Controlled Trials, Mendelian Randomization, and Observational Studies.

Publications

Slaney, C., & Davey Smith, G. (2025). Genetically informed study shows maternal alcohol use in pregnancy may lead to serious sequelae in offspring in East Asia. *Alcohol: Clinical and Experimental Research, 00, 1-5.* DOI: https://doi.org/10.1111/acer.70070

Slaney, C., Mac Giollabhui, N., van der Most, P. J., Palacios, E. R., Snieder, H., Nivard, M., Hemani, G., Hartman, C. A., Khandaker, G. M. (2025). Positive and negative affect, related mental health traits, and cognitive performance: shared genetic architecture and potential causality. *Submitted to Elife. MedRxiv*: https://doi.org/10.1101/2024.11.01.24316562

Mac Giollabhui, N.*, **Slaney, C.*,** Hemani, G., Foley, E. M., van der Most, P. J., Nolte, I.M., Snieder, H., Davey Smith, G., Khandaker, G., & Hartman, C. (2025). Role of Inflammation in Depressive and Anxiety Disorders, Affect, and Cognition: Genetic and Non-Genetic Findings in the Lifelines Cohort Study. *Translational Psychiatry.* DOI: https://doi.org/10.1038/s41398-025-03372-w
***Joint First Author. I conducted all genetic analyses; contributed to study design and write-up.**

Palacios, E.R., Shapland, C.Y., Wolf, L.J., Nordestgaard, L.T., Anderson, E., **Slaney, C.,** Bernie, D., Mitchell, D., Kehoe, P.G., Griffith, G.J. and Tilling, K., 2025. Dissecting the effect of long-term exposure to air pollution on risk of dementia in UK Biobank. *Submitted to Environmental Health. MedRxiv*: https://doi.org/10.1101/2025.06.18.25329828

Foley, É. M., **Slaney, C.,** Donnelly, N. A., Kaser, M., Ziegler, L., & Khandaker, G. M. (2024). A novel biomarker of interleukin 6 activity and clinical and cognitive outcomes in depression. *Psychoneuroendocrinology*, *164*, 107008. DOI: https://doi.org/10.1016/j.psyneuen.2024.107008

Slaney, C., Sallis, H. M., Jones, H. J., Dardani, C., Tilling, K., Munafò, M. R., ... & Charge Inflammation Working Group. (2023). Association between inflammation and cognition: triangulation of evidence using a population-based cohort and Mendelian randomization analyses. *Brain, behavior, and immunity*, *110*, 30-42. DOI: https://doi.org/10.1016/j.bbi.2023.02.010

Slaney, C., Perkins, A. M., Davis, R., Penton-Voak, I., Munafò, M. R., Houghton, C. J., & Robinson, E. S. (2023). Objective measures of reward sensitivity and motivation in people with high v. low anhedonia. *Psychological medicine*, *53*(10), 4324-4332. DOI: https://doi.org/10.1017/S0033291722001052

Wilkinson, M. P., **Slaney, C. L.,** Mellor, J. R., & Robinson, E. S. J. (2021). Investigation of reward learning and feedback sensitivity in non-clinical participants with a history of early life stress. *PLoS One*, *16*(12), e0260444. DOI: https://doi.org/10.1371/journal.pone.0260444.

Slaney, C. L., Hales, C. A., & Robinson, E. S. (2018). Rat models of reward deficits in psychiatric disorders. *Current Opinion in Behavioral Sciences*, *22*, 136-142. DOI: https://doi.org/10.1016/j.cobeha.2018.05.001

Slaney, C., Hinchcliffe, J. K., & Robinson, E. S. (2018). Translational shifts in preclinical models of depression: implications for biomarkers for improved treatments. In *Biomarkers in Psychiatry* (pp. 169-193). Springer, Cham. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7614182/pdf/EMS164626.pdf

Conference Poster Presentations

Slaney, C., Mac Giollabhui, N., van der Most, P. J., Palacios, E. R., Snieder, H., Nivard, M., Hemani, G., Hartman, C. A., Khandaker, G. M. (2025) Positive and negative affect, related mental health traits,

and cognitive performance: shared genetic architecture and potential causality. *European Human Genetics Conference.*

Slaney, C., Sallis, H. M., Jones, H., Dardani, C., CHARGE Inflammation Working Group, Tilling, K., Munafò, M. R., Davey Smith, G., Mahedy, L., & Khandaker, G. M. (2022). Association between inflammation and cognitive functioning: Findings from a population-based cohort and Mendelian randomization analyses. *World Congress for Psychiatric Genetics.*

Slaney C, Houghton, C. J., Penton-Voak, I., Munafò, M., & Robinson, E. S. J. (2019). Reward sensitivity and motivation in healthy volunteers with high vs low trait anhedonia. *Society for Neuroscience*

Slaney C, Houghton, C. J., Penton-Voak, I., Munafò, M., & Robinson, E. S. J. (2018). Validating an objective measure of motivation for reward using a Joystick-Operated Runway Task. *Journal of Psychopharmacology.*

Mentoring

Sally Turner (2021-2023) MRes Student; Current Position: PhD Student (University of Bath, UK)

Achievements and Scholarships

Early Career Investigator Program - Poster Presentation Finalist	2022
Discipline Hopping Fellowship, Elizabeth Blackwell Institute	2020
Best First Year PhD Talk, School of Physiology, Pharmacology and Neuroscience	2018
Wellcome Trust PhD Studentship	2016
Masters Scholarship Scheme, University of Nottingham	2015
50% Fees Scholarship: Merit based award, School of Medicine, University of Nottingham	2015
John Norton Prize for excellence in examinations, St. Cuthbert's, University of Durham	2013