BECKI GREEN

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Hardworking doctoral student with a passion for data science and public health.

EDUCATION

PHD ENRICHMENT STUDENT – *The Alan Turing Institute (12/2020 – Present)*
12-month Enrichment studentship at the Alan Turing Institute, with access to Turing expertise, mentoring and courses. **Additional responsibilities: Elected student representative.**

PHD NEUROSCIENCE RESEARCH – *King's College London – Institute of Psychiatry, Psychology & Neuroscience (02/2019 – Present)*
Project: Investigating the use of metabolites as early biomarkers of dementia.
Identifying combinations and networks of blood metabolites that are associated with cognitive decline and dementia and assessing predictive performance. Investigating the nature of such relationships by interrogating causality and disentangling mediating life course factors.
Awards: Turing Enrichment Studentship, Guarantors of Brain Award (£1000)

MSC GENES, ENVIRONMENT & DEVELOPMENT IN PSYCHOLOGY & PSYCHIATRY – DISTINCTION (78%) – *King's College London – Institute of Psychiatry, Psychology & Neuroscience (2017 – 2018)*
Project: Investigating the relationships between polygenic risks scores for hypothalamic pituitary axis (HPA) function, stressful life events, and the development of emotional problems.
Key research skills: Genetic association studies, polygenic risk scores, advanced statistics, twin modelling, bioinformatics, public engagement.
Awards: King's Interdisciplinary Award in Art, Science & Mental Health – awarded by the principal for my project exploring the interface between the creative arts and mental health.

MSC BIOMEDICAL SCIENCES RESEARCH – MERIT (69%) – *University of Bristol – Faculty of Biomedical Sciences (2014-2015)*
Project: Developing and evaluating the use of a cognitive-motor task as a quantitative measure of fatigue using functional fMRI in healthy volunteers. Designing the task, recruiting participants, collecting, preprocessing and analysing data.
Key research skills: Clinical research, bioinformatics, molecular genetics laboratory techniques, research methodology, statistics, public engagement. **Additional responsibilities: Elected student council representative.**

BSC PHYSIOLOGICAL SCIENCE (2.1) – *University of Bristol – Faculty of Biomedical Sciences (2010-2013)*
Units: Neuroscience, pharmacology, physiology, statistics, psychology, anatomy, research methods.
Additional responsibilities: Elected chair and cofounder of MedSciSoc (BSc Medical Sciences society).

AAB (A level); 7A*, 3A (GCSE) – *(2003 – 2010)*
Awards: CREST Science Communicator Award – Gold (Young Scientist of the Year Finalist).

RELEVANT WORK HISTORY

GRADUATE TEACHING ASSISTANT – *King's College London, London (06/2019-Present)*
Module co-lead for Big Data (Python) and teaching assistant in genetics and research methods for BSc and MSc students. Creating teaching content, leading seminars and practicals, and marking examinations and coursework.

FREELANCE EDITOR – *Cactus Communications, Global – (11/2018 – Present)*
Editing, formatting, and proofreading scientific manuscripts prior to journal submission in the field of Life Sciences. Providing feedback on scientific methodology, conference posters and presentations.

RESEARCH OFFICER – *NIHR Clinical Research Network WoE, Bristol (11/2016 – 07/2017)*
Managing the set up and delivery of primary care clinical research studies in 59 sites. Championing research in the West of England, and leading events to promote patient and public involvement. Undertaking audits into research delivery and performance.

RESEARCH HEALTHCARE ASSISTANT – *NIHR Clinical Research Network WoE, Bristol (04/2016 – 11/2016)*
Supporting the delivery of clinical trials. Leading study specific training in the West of England as well as utilising clinical skills to carry out and document trials.

DATA ANALYST (TEMPORARY CONTRACT) – *Hymans Robertson, Birmingham (01/2014 – 02/2014)*
Digitising sensitive data about Members' pensions and performing analyses.

CHARITY WORK

AD HOC VOLUNTEER – *Rethink Mental Illness, London (2017, 2019)*
Completing the London Triathlon in 2018 for Rethink Mental Illness, raising >£1000. Participating in photoshoots and blogs to encourage others to fundraise.

CHRISTMAS VOLUNTEER – *Crisis, Birmingham (2014, 2015, 2016, 2017)*
Providing a safe, friendly environment for Crisis service users over the Christmas period.

VOLUNTEER MANAGER – *Kissing it Better, Warwick (2012 –2014)*
Volunteer manager for a charity aimed at improving care environments for inpatients with dementia.

NURSING HOME VOLUNTEER – *Cherry Trees, Alcester* (2010-2012)
Assisting with resident care and entertainment in a local nursing home.

ADDITIONAL SKILLS & COURSES

COMPUTATIONAL AND ANALYTICAL SKILLS – highly adept with computers and skilled in R, Python, Plink, PRSice, bash, SPSS, MS Office. Additional knowledge of SQL, git and GitHub.

Courses: Research Software Engineering, Machine Learning, Prediction Modelling, Pathway and Network Analysis, Mendelian Randomisation, Advanced Python for Biologists, Bayesian Statistics, Introduction to High Performance Computing, Harmonising Data Across Cohorts.

ADDITIONAL QUALIFICATIONS – Active IQ Level 4 Qualification in Nutrition Coaching (1 year course, certified 2014); Clinical: venepuncture, throat swab, electrocardiogram, NHS Healthcare Certificate, informed consent, and Good Clinical Practice certified.

PUBLICATIONS

Green, B., Lord, J., Xu, J., Maddock, J., Kim, M., Dobson, R., ... & Proitsi, P. (2020). Metabolic correlates of late midlife cognitive function: findings from the 1946 British Birth Cohort (preprint). *medRxiv*.

Xu, J., Bankov, G., Min, K., Wretlind, A., Lord, J., **Green, B.,** ... Legido-Quigley, C. (2020). Integrated lipidomics and proteomics network analysis highlights lipid and immunity pathways associated with Alzheimer's disease. *Translational Neurodegeneration*, *9*(1), 36.

Lord, J., Jermy, B., **Green, B.**, Wong, A., Xu, J., Legido-Quigley, C., ... & Proitsi, P. (2020). Deciphering the causal relationship between blood metabolites and Alzheimers Disease: a Mendelian Randomization study (preprint). *medRxiv*.

Green, R., Lord, J., Maddock, J., Kim, M., Dobson, R., Legido-Quigley, C., … Proitsi, P. (2019). S34Investigating the role of blood metabolites as biomarkers of cognitive function and dementia in the MRC 1946 British Birth Cohort. *European Journal of Neuropsychopharmacology*, *29*(5), S131–2.