Jodie Lord BSc, MSc, MBPsS

ACADEMIA

PhD, Neuroscience - In Progress

Institute of Psychiatry, Psychology & Neuroscience: King's College London (2018-2021)

- Project: Integrating metabolomics with genomic and non-omic modalities to investigate predictive and causal markers of Alzheimer's Disease (supervisors: Dr Petra Proitsi, Prof Richard Dobson).
- 3 year fully funded studentship from the van Geest Endowment fund.
- Awards to date:
 - o Winner: Early career investigator programme award World Congress of Psychiatric Genetics, 2019.
 - o Winner: Best academic poster KCL Neuroscience Symposium, 2019.
 - o Finalist: Young lipid scientist of the year Soc. of Chemical Industry 2019.
 - o Recipient: Alzheimer's Research UK travel grant, 2020.

MSc, Applied Statistical Modelling and Health Informatics - In Progress

Institute of Psychiatry, Psychology & Neuroscience: King's College London (2019-2021)

- 1 year partially funded scholarship awarded from IoPPN Biostatistics department.
- Thesis: Application of exploratory mediation for the identification of biological mediators relevant to Alzheimer's Disease within highly correlated data (supervisor: Dr Ewan Carr).
- Grades to date:
 - Statistical programming (with assessments in R, Stata, and Python): 96%
 - Statistical modelling: 88%
 - o Prediction modelling: 88%
 - o Multilevel and longitudinal modelling: 83%
 - o Clinical Trials: 82%
 - Causal modelling and evaluation: 76%
 - Structural equation modelling: 70%
 - o Machine Learning: Assignment: grade pending. Exam: 92%

MSc, Neuroscience - Distinction

Institute of Psychiatry, Psychology & Neuroscience: King's College London (2017-2018)

- Specialisation: Psychiatric genetics.
- Thesis: "Disentangling Anorexia Nervosa using Genetics" (thesis grade: 89%. Supervisor: Prof Gerome Breen. Co-supervisor: Dr Jonathan Coleman).
- Final project focussed on full quality control of raw genomic data, a genome-wide association and metaanalysis of the Anorexia Nervosa phenotype, and cross-trait polygenic scoring across related phenotypes.
- Graduated within the top 2% of a cohort of >100 students.

BSc, Psychology – 1st Class Hons.

College of Life and Environmental Sciences: University of Exeter (2010-2013)

- Thesis: Assessing the link between sports concussion and cognitive impairment in a cohort of university rugby players (thesis grade: 73%. Supervisor: Prof Huw Williams).
- >70% threshold consistently maintained across years 1, 2 and 3.
- 83% in both 1st year and 2nd year Statistics, 79% in 1st year Research Methods, 80% in 2nd year Biological Psychology, 77% in 2nd year Cognitive Psychology, 76% in 3rd year Brain Imaging.

Graduate Teaching Assistant

King's College London, London (Dec 2018-present)

- Module lead for the BSc Psychology 'Big Data Analytics in Python' mini-module (teaching material openly
 accessible at: github.com/jodielord/python_teaching_material). Responsible for producing all course
 content and assessment material.
- Teaching assistant in research methods modules for BSc Psychology students, R workshops and journal clubs for MSc Neuroscience students, and prediction modelling modules for MSc Statistical Modelling students.

Health Care Assistant

The Priory Hospital, Roehampton, London (Oct 2017-present)

- Weekend assistance, predominantly within child and adolescent mental health wards.
- Maintaining a safe, stimulating and therapeutic environment for patients residing on the wards, and close communication with the multidisciplinary team to uphold patient care and prevent risk.

Product Analyst / Product Owner

AIMIA, 80 Strand, London (May 2016-Oct 2017)

Working within one of four core feature teams, the primary focus of this role was to drive the development of a newly launching global analytics platform, from concept to delivery. Duties included:

- Being the leading face of a team of 6 back-end and front-end developers, and 4 test-analysts.
- Owning the developmental backlog; defining and prioritising scope.
- Co-ordination of multiple teams, both onshore and offshore.
- Feature sign-off.

Business Analyst / Product Consultant

Financial Express, Church Street East, Woking (May 2015 – May 2016)

• Driving the development of a productised web-based platform, managing elements similar to the product owner role cited above.

Forensic Health Care Assistant

Farmfield Secure Services, Farmfield Drive, Surrey (Jan 2015 – May 2015)

• Therapeutic care to male forensic psychiatric patients detained under the Mental Health Act (1983).

Account Manager

Financial Express, Great Pulteney Street, London, (Sep 2013 – Jan 2015)

 Managing the relationship and retention of > 50 institutional financial client accounts based across London, Ireland and Channel Islands. Clients included; Aviva, HSBC, Fidelity and Standard Life.

Camp Counsellor (Summer Placement: U.S.A)

Indian Head Camp, Pennsylvania (Jun 2011 – Aug 2011)

• Round the clock care to twelve 10-11-year-old females within a larger camp setting.

VOLUNTARY WORK EXPERIENCE

Research assistant

Oxford University in collaboration with King's College London (Feb 2018-Aug 2018)

Collaborating with a team of clinical psychologists and fellow research assistants to undertake an
experimental protocol aimed at utilising cognitive models to reduce social anxiety in high school students.

Research intern

Centre for Clinical Neuropsychology Research, Exeter (Jan 2011-Apr 2013)

• Planning and assistance at London based neuroscience conferences. Topics focussed on neuroplasticity following early life trauma and the links between traumatic brain injury and offending behaviour.

- Involved in the co-creation of a website designed to inform the public on neuroscience issues.
- Data analysis support (SPSS).

TALKS AND PRESENTATIONS

Edinburgh University Journal Club – Dec 2020

Presentation of work: Disentangling independent and mediated causal relationships between blood metabolites and Alzheimer's Disease.

Dementia Platforms UK Datathon – Nov 2020

Presentation of group analysis: Latent growth curve modelling to assess gait speed as a risk factor for cognitive impairment within the English Longitudinal Study of Ageing cohort.

Statistical Genetics Unit Journal Club - Oct 2020

Presenting and appraising: A fast and scalable framework for large scale and ultrahigh dimensional sparse regression with application in the UK Biobank.

Social, Genetic and Developmental Psychiatry Centre (SGDP) Methods Meeting – May 2020

Primer: Mendelian randomization: Introduction to methods and applications.

Maurice Wohl Clinical Neuroscience Institute Centre Talk – *Nov 2019*

Presentation of work: Investigating the role of modifiable risk factors on the causal pathway to Alzheimer's Disease.

Alzheimer's Research UK Network Science Day - Nov 2019

Presentation of the research team's work to members of the general public.

Slides for accessible presentations available at: https://jodielord.netlify.app/posters/

CONFERENCE POSTERS

International Society of Clinical Biostatistics Annual Conference – Aug 2020

World Congress of Psychiatric Genetics – Oct 2019 (Winner: Early career investigator programme award)

NIHR Maudsley Biomedical Research Council Annual Conference — Sep 2019

King's College London Alzheimer's Research UK Conference – May 2019

King's College London Annual Neuroscience Symposium – May 2019 (Winner: Best academic poster)

Alzheimer's Research UK National Conference - Apr 2019

PEER REVIEWED PUBLICATIONS AND PREPRINTS

Lord, J., Jermy, B., Green, R., Wong, A., Xu, J., Legido-Quigley, C., ... & Proitsi, P. (2021). Mendelian randomization identifies blood metabolites previously linked to midlife cognition as causal candidates in Alzheimer's disease. *Proceedings of the National Academy of Sciences*, *118*(16).

Lord, J., Zettergren, A., Ashton, N., Karikari, T.K., N. J., Benedet, Simren, J., ... Proitsi, P. (2021). A genome-wide association study of plasma phosphorylated tau181. *Neurobiology of Aging. In press (DOI: 10.1016/j.neurobiologing.2021.04.018)*.

Lord, J., Green, R., Choi S.W., Hubel, C., Aarsland, D., ... & Proitsi, P. (2021). Disentangling independent and mediated causal relationships between blood metabolites, cognitive factors, and Alzheimer's Disease. *medRxiv. Preprint. (DOI: 10.1101/2021.02.12.21251409)*.

Zettergren, A., **Lord, J.**, Ashton, N. J., Benedet, A. L., Karikari, T. K., Rodriguez, J. L., ... & Blennow, K. (2021). Association between polygenic risk score of Alzheimer's disease and plasma phosphorylated tau in individuals from the Alzheimer's Disease Neuroimaging Initiative. *Alzheimer's Research & Therapy*, *13*(1), 1-10.

Handy, A., **Lord, J.,** Green, R., Xu, J., Aarsland, D., Velayudhan, L., ... & GERAD1 Consortium. (2021). Assessing genetic overlap and causality between blood plasma proteins and Alzheimer's Disease. *medRxiv Preprint*. (DOI: 10.1101/2021.04.21.21255751).

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. *medRxiv. Preprint. (DOI:* 10.1101/2020.11.23.20236463).

Xu, J., Bankov, G., Kim, M., Wretlind, A., **Lord, J.,** Green, R., ... & Legido-Quigley, C. (2020). Integrated lipidomics and proteomics network analysis highlights lipid and immunity pathways associated with Alzheimer's disease. *Translational neurodegeneration*, *9*(1), 1-15.

ADDITIONAL SKILLS, CERTIFICATIONS & COURSES

- Highly computer literate, and skilled in the use of R, Python, Stata, SPSS, PLINK, PRSice, and Bash scripting.
- Working knowledge of SQL and LaTeX.
- A number of entries to the TidyTuesday weekly social data challenge using R (markdown scripts for all entries available at: https://github.com/jodielord/TidyTuesdays).
- Professional Skills Certification in Molecular Biology and Genetics Virtual Lab (King's College London).
- Code in a Day 1 day onsite short course (*Decoded*).
- Data Visualisation and Infographic Design 2 day onsite short course.
- Polygenic Risk Score Analysis; Basic and advanced applications of PRSice 1 day onsite short course.
- Advanced Python for Biologists 5 day short course.
- Certified in emergency first aid and the prevention and management of violence and aggression
- Fully DBS checked and certified.
- Full driving license holder and vehicle owner.