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Employment

- 2021– Senior Research Fellow, Division of Psychiatry, Centre for Clinical Brain Sciences, University of Edinburgh
- 2017–2021 Data Scientist, Division of Psychiatry, Centre for Clinical Brain Sciences, University of Edinburgh
- 2006–2007 Laboratory Technician, Drosophila Genetic Resource Center, Kyoto Institute of Technology

Education & Training

- 2015–2017 Post-doctoral Research Fellow, Division of Psychiatry, Centre for Clinical Brain Sciences, University of Edinburgh
- 2012–2015 Post-doctoral Research Associate, Department of Animal and Plant Sciences, University of Sheffield
- 2008–2012 PhD Psychology, University of Edinburgh
- 2007–2008 MSc Quantitative Genetics & Genome Analysis, University of Edinburgh
- 1999–2003 AB Theoretical Evolutionary Biology, Cornell University

External Roles

Psychiatric Genomics Consortium

- 2019– Open Science Maintainer, <https://github.com/psychiatric-genomics-consortium>
- 2017–2019 Data Access Committee Representative, Major Depressive Disorder Working Group

Publications

Preprints

Adams, M. J., Thorp, J. G., Jermy, B. S., Kwong, A. S. F., Köiv, K., Grotzinger, A. D., Nivard, M. G., Marshall, S., Milaneschi, Y., Baune, B. T., Müller-Myhsok, B., Penninx, B. W., Boomsma, D. I., Levinson, D. F., Breen, G., Pistis, G., Grabe, H. J., Tiemeier, H., Berger, K., ... Derks, E. M. (2023). Genetic structure of major depression symptoms across clinical and community cohorts. *medRxiv*. <https://doi.org/10.1101/2023.07.05.23292214>

As Lead Author

Studies designed and lead.

Adams, M., Hill, W., Howard, D., Dashti, H., Davis, K., Campbell, A., Clarke, T.-K., Deary, I., Hayward, C., Porteous, D., Hotopf, M., & McIntosh, A. (2019). Factors associated with sharing e-mail information and mental health survey participation in large population cohorts. *International Journal of Epidemiology*. <https://doi.org/10.1093/ije/dyz134>

Adams, M., Howard, D., Luciano, M., Clarke, T.-K., Davies, G., Hill, W., Smith, D., Deary, I., Porteous, D., McIntosh, A., 23andMe Research Team, & Major Depressive Disorder Working Group of the Psychiatric Genomics Consortium. (2019). Genetic stratification of depression by neuroticism: Revisiting a diagnostic tradition. *Psychological Medicine*, 1–10. <https://doi.org/10.1017/S0033291719002629>

Arden, R., & Adams, M. (2016). A general intelligence factor in dogs. *Intelligence*, 55, 79–85. <https://doi.org/10.1016/j.intell.2016.01.008>

Adams, M., Bonaventura, M., Ostner, J., Schulke, O., De Marco, A., Thierry, B., Engelhardt, A., Widdig, A., Gerald, M., & Weiss, A. (2015). Personality structure and social style in macaques. *Journal of Personality and Social Psychology*, 109(2), 338–353. <https://doi.org/10.1037/pspp0000041>

Adams, M., Robinson, M., Mannarelli, M., & Hatchwell, B. (2015a). Social genetic and social environment effects on parental and helper care in a cooperatively breeding bird. *Proceedings of the Royal Society B-Biological Sciences*, 282(1810). <https://doi.org/10.1098/rspb.2015.0689>

Adams, M. (2014). Feasibility and uncertainty in behavior genetics for the nonhuman primate. *International Journal of Primatology*, 35(1), 156–168. <https://doi.org/10.1007/s10764-013-9722-8>

Hatchwell, B., Gullett, P., & Adams, M. (2014). Helping in cooperatively breeding long-tailed tits: A test of Hamilton's rule. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 369(1642). <https://doi.org/10.1098/rstb.2013.0565>

Adams, M., King, J., & Weiss, A. (2012). The majority of genetic variation in orangutan personality and subjective well-being is nonadditive. *Behavior Genetics*, 42, 675–686. <https://doi.org/10.1007/s10519-012-9537-y>

Reviews & Commentary

Adams, M. J. (2023). Leveraging family relatedness to detect participation bias in genetic studies. *Nature Genetics*. <https://doi.org/10.1038/s41588-023-01440-9>

Arden, R., Bensky, M., & Adams, M. (2016). A review of cognitive abilities in dogs, 1911 through 2016: More individual differences, please! *Current Directions in Psychological Science*, 25(5), 307–312. <https://doi.org/10.1177/0963721416667718>

As Main Author

Provided primary data, analysis, and design.

Davyson, E., Shen, X., Gadd, D. A., Bernabeu, E., Hillary, R. F., McCartney, D. L., Adams, M., Marioni, R., & McIntosh, A. M. (2023). Metabolomic investigation of major depressive disorder identifies a potentially causal association with polyunsaturated fatty acids. *Biological Psychiatry*. <https://doi.org/10.1016/j.biopsych.2023.01.027>

Wang, X., Walker, A., Revez, J. A., Ni, G., Adams, M. J., McIntosh, A. M., Wray, N. R., Ripke, S., Mattheisen, M., Trzaskowski, M., Byrne, E. M., Abdellaoui, A., Adams, M. J., Agerbo, E., Air, T. M., Andlauer, T. F. M., Bacanu, S.-A., Bækvad-Hansen, M., Beekman, A. T. F., . . . Wray, N. R. (2023). Polygenic risk prediction: Why and when out-of-sample prediction R^2 can exceed snp-based heritability. *The American Journal of Human Genetics*, *110*(7), 1207–1215. <https://doi.org/10.1016/j.ajhg.2023.06.006>
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Barbu, M. C., Amador, C., Kwong, A. S., Shen, X., Adams, M. J., Howard, D. M., Walker, R. M., Morris, S. W., Min, J. L., Liu, C., van Dongen, J., Ghanbari, M., Relton, C., Porteous, D. J., Campbell, A., Evans, K. L., Whalley, H. C., & McIntosh, A. M. (2022). Complex trait methylation scores in the prediction of major depressive disorder. *eBioMedicine*, *79*, 104000. <https://doi.org/10.1016/j.ebiom.2022.104000>

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Chuong, M., Adams, M. J., Kwong, A. S. F., Haley, C. S., Amador, C., & McIntosh, A. M. (2022). Genome-by-Trauma Exposure Interactions in Adults With Depression in the UK Biobank. *JAMA Psychiatry*, *79*(11), 1110–1117. <https://doi.org/10.1001/jamapsychiatry.2022.2983>

Grotzinger, A. D., Mallard, T. T., Akingbuwa, W. A., Ip, H. F., Adams, M. J., Lewis, C. M., McIntosh, A. M., Grove, J., Dalsgaard, S., Lesch, K.-P., Strom, N., Meier, S. M., Mattheisen, M., Børglum, A. D., Mors, O., Breen, G., Meier, S. M., Lee, P. H., Kendler, K. S., . . . Schizophrenia Working Group of the Psychiatric Genetics Consortium. (2022). Genetic architecture of 11 major psychiatric disorders at biobehavioral, functional genomic and molecular genetic levels of analysis. *Nature Genetics*. <https://doi.org/10.1038/s41588-022-01057-4>

Shen, X., Caramaschi, D., Adams, M. J., Walker, R. M., Min, J. L., Kwong, A., Hemani, G., Barbu, M. C., Whalley, H. C., Harris, S. E., Deary, I. J., Morris, S. W., Cox, S. R., Relton, C. L., Marioni, R. E., Evans, K. L., McIntosh, A. M., & Genetics of DNA Methylation Consortium. (2022). DNA methylome-wide association study of genetic risk for depression implicates antigen processing and immune responses. *Genome Medicine*, *14*(1), 36. <https://doi.org/10.1186/s13073-022-01039-5>

Barbu, M., Harris, M., Shen, X., Stolicyn, A., Green, C., Amador, C., Walker, R., Morris, S., Adams, M., Sandu, A., McNeil, C., Waiter, G., Evans, K., Campbell, A., Wardlaw, J., Steele, D., Murray, A., Porteous, D., McIntosh, A., & Whalley, H. (2021). Epigenome-wide association study of global cortical volumes in Generation Scotland: Scottish Family Health Study. *Epigenetics*. <https://doi.org/10.1080/15592294.2021.1997404>

Barbu, M., Huider, F., Campbell, A., Amador, C., Adams, M., Lynall, M.-E., Howard, D., Walker, R., Morris, S., van Dongen, J., Porteous, D., Evans, K., Bullmore, E., Willemsen, G., Boomsma, D., Whalley, H., & McIntosh, A. (2021). Methylome-wide association study of antide-

pressant use in Generation Scotland and the Netherlands Twin Register implicates the innate immune system. *Molecular Psychiatry*.

Howard, D., Pain, O., Arathimos, R., Barbu, M., Amador, C., Walker, R., Jermy, B., Adams, M., Deary, I., Porteous, D., Campbell, A., Sullivan, P., Evans, K., Arseneault, L., Wray, N., Meaney, M., McIntosh, A., & Lewis, C. (2021). Methylome-wide association study of early life stressors and adult mental health. *Human Molecular Genetics*. <https://doi.org/10.1093/hmg/ddab274>

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Schoorl, J., Barbu, M., Shen, X., Harris, M., Adams, M., Whalley, H., & Lawrie, S. (2021). Grey and white matter associations of psychotic-like experiences in a general population sample UK Biobank. *Translational Psychiatry*, *11*(1). <https://doi.org/10.1038/s41398-020-01131-7>

Shen, X., MacSweeney, N., Chan, S., Barbu, M., Adams, M., Lawrie, S., Romaniuk, L., McIntosh, A., & Whalley, H. (2021). Brain structural associations with depression in a large early adolescent sample (the ABCD study®). *EClinicalMedicine*, *4*(2). <https://doi.org/10.1016/j.eclinm.2021.101204>

Van Dongen, J., Hagenbeek, F., Suderman, M., Roetman, P., Sugden, K., Chiocchetti, A., Ismail, K., Mulder, R., Hafferty, J., Adams, M., Walker, R., Morris, S., Lahti, J., Küpers, L., Escaramis, G., Alemany, S., Jan Bonder, M., Meijer, M., Ip, H., . . . Biobank-based Integrative Omics Study Consortium. (2021). DNA methylation signatures of aggression and closely related constructs: A meta-analysis of epigenome-wide studies across the lifespan. *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-020-00987-x>

Barbu, M., Spiliopoulou, A., Colombo, M., McKeigue, P., Clarke, T.-K., Howard, D., Adams, M., Shen, X., Lawrie, S., McIntosh, A., & Whalley, H. (2020). Expression quantitative trait loci-derived scores and white matter microstructure in UK Biobank: A novel approach to integrating genetics and neuroimaging. *Translational Psychiatry*, *10*. <https://doi.org/10.1038/s41398-020-0724-y>

Davis, K., Coleman, J., Adams, M., Allen, N., Breen, G., Cullen, B., Dickens, C., Fox, E., Graham, N., Holliday, J., Howard, L., John, A., Lee, W., McCabe, R., McIntosh, A., Pearsall, R., Smith, D., Sudlow, C., Ward, J., . . . Hotopf, M. (2020). Mental health in UK Biobank – development, implementation and results from an online questionnaire completed by 157 366 participants: A reanalysis. *BJPsych Open*, *6*(2). <https://doi.org/10.1192/bjo.2019.100>

de Nooij, L., Harris, M., Adams, M., Clarke, T.-K., Shen, X., Cox, S., McIntosh, A., & Whalley, H. (2020). Cognitive functioning and lifetime major depressive disorder in UK Biobank. *European Psychiatry*, *63*(1). <https://doi.org/10.1192/j.eurpsy.2020.24>

Green, C., Shen, X., Stevenson, A., Conole, E., Harris, M., Barbu, M., Hawkins, E., Adams, M., Hillary, R., Lawrie, S., Evans, K., Walker, R., Morris, S., Porteous, D., Wardlaw, J., Douglas Steele, J., Waiter, G., Sandu, A.-L., Campbell, A., . . . Whalley, H. (2020). Structural brain correlates of serum and epigenetic markers of inflammation in major depressive disorder. *Brain, Behavior, and Immunity*. <https://doi.org/10.1016/j.bbi.2020.11.024>

Howard, D., Folkersen, L., Coleman, J., Adams, M., Glanville, K., Werge, T., Hagenaars, S., Han, B., Porteous, D., Campbell, A., Clarke, T.-K., Breen, G., Sullivan, P., Wray, N., Lewis, C., & McIntosh, A. (2020). Genetic stratification of depression in UK Biobank. *Translational Psychiatry*, *10*(1). <https://doi.org/10.1038/s41398-020-0848-0>

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- Shen, X., Howard, D., Adams, M., Hill, W., Clarke, T.-K., Major Depressive Disorder Working Group of the Psychiatric Genomics Consortium, Deary, I., Whalley, H., & McIntosh, A. (2020). A phenome-wide association and Mendelian Randomisation study of polygenic risk for depression in UK Biobank. *Nature Communications*, 11. <https://doi.org/10.1038/s41467-020-16022-0>
- Stolicyn, A., Harris, M., Shen, X., Barbu, M., Adams, M., Hawkins, E., Nooij, L., Yeung, H., Murray, A., Lawrie, S., Steele, J., McIntosh, A., & Whalley, H. (2020). Automated classification of depression from structural brain measures across two independent community-based cohorts. *Human Brain Mapping*. <https://doi.org/10.1002/hbm.25095>
- Arnau Soler, A., Adams, M., Clarke, T.-K., MacIntyre, D., Milburn, K., Navrady, L., Generation Scotland, Major Depressive Disorder Working Group of the Psychiatric Genomics Consortium, Hayward, C., McIntosh, A., & Thomson, P. (2019). A validation of the diathesis-stress model for depression in Generation Scotland. *Translational Psychiatry*. <https://doi.org/10.1038/s41398-018-0356-7>
- Arnau Soler, A., MacDonald-Dunlop, E., Adams, M., Clarke, T.-K., MacIntyre, D., Milburn, K., Navrady, L., Generation Scotland, Major Depressive Disorder Working Group of the Psychiatric Genomics Consortium, Hayward, C., McIntosh, A., & Thomson, P. (2019). Genome-wide by environment interaction studies of depressive symptoms and psychosocial stress in UK Biobank and Generation Scotland. *Translational Psychiatry*, 9(1). <https://doi.org/10.1038/s41398-018-0360-y>
- Barbu, M., Zeng, Y., Shen, X., Cox, S., Clarke, T.-K., Gibson, J., Adams, M., Johnstone, M., Haley, C., Lawrie, S., Deary, I., McIntosh, A., & Whalley, H. (2019). Association of whole-genome and NETRIN1 signaling pathway-derived polygenic risk scores for major depressive disorder and white matter microstructure in UK Biobank. *Biological psychiatry. Cognitive neuroscience and neuroimaging*, 4(1), 91–100. <https://doi.org/10.1016/j.bpsc.2018.07.006>
- Clarke, T.-K., Adams, M., Howard, D., Xia, C., Davies, G., Hayward, C., Campbell, A., Padmanabhan, S., Smith, B., Murray, A., Porteous, D., Deary, I., & McIntosh, A. (2019). Genetic and shared couple environmental contributions to smoking and alcohol use in the UK population. *Molecular Psychiatry*, N/A, 1–11. <https://doi.org/10.1038/s41380-019-0607-x>
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- Hafferty, J., Navrady, L., Adams, M., Howard, D., Campbell, A., Whalley, H., Lawrie, S., Nicodemus, K., Porteous, D., Deary, I., & McIntosh, A. (2019). The role of neuroticism in self-harm and suicidal ideation: Results from two UK population-based cohorts. *Social Psychiatry and Psychiatric Epidemiology*, *54*(12), 1505–1518. <https://doi.org/10.1007/s00127-019-01725-7>
- Hafferty, J., Wigmore, E., Howard, D., Adams, M., Clarke, T.-K., Campbell, A., MacIntyre, D., Nicodemus, K., Lawrie, S., Porteous, D., & McIntosh, A. (2019). Pharmaco-epidemiology of antidepressant exposure in a UK cohort record-linkage study. *Journal of Psychopharmacology*, 026988111982788. <https://doi.org/10.1177/0269881119827888>
- Harris, M., Shen, X., Cox, S., Gibson, J., Adams, M., Clarke, T.-K., Deary, I., Lawrie, S., McIntosh, A., & Whalley, H. (2019). Stratifying major depressive disorder by polygenic risk for schizophrenia in relation to structural brain measures. *Psychological Medicine*, *50*(10), 1653–1662. <https://doi.org/10.1017/S003329171900165X>
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As Contributing Author

Contributed data to secondary analysis or as a consortium member.

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Book Chapters

Weiss, A., & Adams, M. (2013). Differential behavioral ecology. In C. Carere & D. Maestripieri (Eds.), *Animal personalities: Behavior, physiology, and evolution* (pp. 94–123). The University of Chicago Press.

Adams, M. (2011). Evolutionary genetics of personality in nonhuman primates. In M. Inoue-Murayama, A. Weiss, & S. Kawamura (Eds.), *From genes to animal behavior: Social structures, personality, communication by color* (pp. 137–164). Springer. https://doi.org/10.1007/978-4-431-53892-9_6

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Invited talks

- | | |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 2019 | College of Medicine, University of Malawi |
| 2014 | Institute of Psychiatry, King's College London
Department of Psychology, University of Sheffield
Department of Psychology, University of York |
| 2013 | German Primate Center. Göttingen |

Teaching

Undergraduate

Genetic and Environmental Influences on Behaviour and Mental Health
Medical Science 4 seminar on “Psychiatric Genetics”
Psychology 2 Practical Course (tutor)
Psychology 3 Methods (tutor)

Postgraduate

Univariate and Multivariate Statistics with R

Workshops

GenomicSEM Module, International Statistical Genetics Workshop

Supervision

Doctoral students

Secondary supervisor

2017–2021 Keira Johnston, Precision Medicine

MSc & Honours Students

U of Edinburgh Quantitative Genetics & Genome Analysis
 Biomedical Artificial Intelligence
 Integrative Neuroscience
 Biomedical Sciences and Medical Sciences
U of Sheffield Sheffield Undergraduate Research Experience

Grants

2021–2024 Medical Research Council. *DATAMIND: Data Hub for Mental health Informatics research Development*. (2021–2024) £225,575. (Co-I)

2014 Wellcome Trust. *Inferring genetic architecture from high-density genomic data*. £2000 (Co-I)

2010 Moray Endowment Fund Award. *Selection on human personality*. £2280.

2009 Sasakawa Foundation. *Personality in Japanese macaques*. £1000.

Awards

2012 Fulker Award, Behavior Genetics Association (*Given to a paper of unusual merit that appeared in the most recent volume of Behavior Genetics*)

2008 Sir Kenneth Mather Memorial Prize, Genetics Society. (*Outstanding performance in the area of quantitative genetics.*)

Knowledge Exchange

2021 Evidence Submitted to Cross Party Group – Mental Health, Scottish Parliament
Depression Detectives, online participant-led research forum.

2020 Consultation on Digital Strategy for Scotland, Scottish Government
NHS Research Scotland Mental Health Annual Scientific Meeting

Consulting & Industry Collaborations

23andMe
Baillie Gifford

Open Science

Code repositories

Personal	https://github.com/mja
Group	https://github.com/ccbs-stradl
Consortium	https://github.com/psychiatric-genomics-consortium

Datasets

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Reviewer

American Journal of Primatology, Animal Behaviour, BJPsychOpen, Behavioral Ecology and Sociobiology, Biological Psychiatry, Evolution, Intelligence, International Journal of Primatology, JAMA Psychiatry, Journal of Comparative Psychology, Journal of Research in Personal-

ity, Journal of the American Academy of Child and Adolescent Psychiatry, Lancet Psychiatry, Molecular Psychiatry, Proceedings of the Royal Society B, Psychological Science,