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Author

Cox, Hannah, Bellis, Claire, Lea, Rodney, Nyholt, D., Charlesworth, J., Dyer, T., Blangero, J., Griffiths, Lyn

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Investigating migraine in the descendants of the *Bounty* Mutineers

Hannah C Cox¹, Claire Bellis^{1,2}, Rod A Lea^{1,3}, Dale Nyholt⁴, Jac Charlesworth², Tom Dyer², John Blangero² & Lyn R Griffiths¹.

¹ Genomics Research Centre, Griffith Institute for Health and Medical Research, Griffith University, Gold Coast.

² Southwest Foundation for Biomedical Research, San Antonio, Texas, USA.

³ Institute of Environmental Science and Research Ltd, School of Biological Sciences, Victoria University of Wellington, New Zealand.

⁴ Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Queensland 4029, Australia.

Norfolk Island is a young population isolate whose origins are linked to the infamous mutiny aboard the HMS *Bounty* in 1789, which was originally bound for the West Indies. This historical event resulted in the initial colonisation of Pitcairn Island and later to the settlement of Norfolk Island. To this day, a large proportion of the population residing on Norfolk are descended from a limited number of paternal Isle of Man (*Bounty* mutineer) and maternal Tahitian founders. Epidemiological studies of cardiovascular risk traits and linkage disequilibrium have suggested that the Norfolk population may be of particular use in investigating complex disorders. This population presents a unique opportunity to study the molecular genetics of migraine. The original Norfolk Island cohort consisted of 600 individuals from the *2000 Norfolk Island Health Study*. To date, migraine has been well characterised in this population using both International Headache Society (IHS) and Latent Class Analysis (LCA). Currently, the complete Norfolk pedigree comprises approximately 6537 individuals descended from the original population founders. However due to size and complexity of this structure the pedigree has been trimmed to 1078 individuals, of whom 377 have phenotypic and genetic data available. A high general prevalence of migraine has been observed (23%) in the pedigree, with approximately 12% of males and 33% of females afflicted. A moderate genetic component is also evident in this family, with the heritability estimates of 42% and 52% for IHS and LCA derived phenotypes, respectively. Given the unique history of this population, high general migraine prevalence, increased preponderance of affected females and significant evidence of a genetic component ($p < .05$) we are undertaking molecular studies in an effort to localise potential susceptibility genes.