# Supplementary Information

## Genetic Correlation between Chronic Pain and BPD

As previously described, LD-score regression was used to calculate genetic overlap between BPD and chronic pain, using Multisite Chronic Pain GWAS output, and output of the largest available GWAS of BPD (5) provided directly by Witt et al.

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| --- | --- | --- | --- | --- | --- |
| rg (SE) | Z | P | h2obs (SE) | h2int (SE) | gcov (SE) |
| 0.39 (0.095) | 4.05 | 5E-5 | 0.075 (0.003) | 1.02 (0.01) | 0.004 (0.007) |

Supplementary Table 2: Genetic correlation between BPD and MCP. rg = genetic correlation coefficient, SE = standard error, Z = z score, P = p value, h2obs = observed SNP-heritability, h2int = LD-score regression intercept value, gcov = genetic covariance.

## Genetic Correlation between Chronic Pain and ADHD

LD-score regression (1,2) was used to calculate genetic correlation between chronic pain and ADHD, using GWAS output from recent large GWAS of ADHD (3), and of a chronic pain trait Multisite Chronic Pain (4), output which is available for public download.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| rg (SE) | Z | P | h2obs (SE) | h2int (SE) | gcov (SE) |
| 0.56 (0.03) | 18.1 | 1.5E-73 | 0.074 (0.003) | 1.02 (0.01) | 0.015 (0.008) |

Supplementary Table 3: Genetic correlation between ADHD and MCP. rg = genetic correlation coefficient, SE = standard error, Z = z score, P = p value, h2obs = observed SNP-heritability, h2int = LD-score regression intercept value, gcov = genetic covariance.

References

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