

1 **Description of Additional Supplementary Files**

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3 File Name: Supplementary Data 1

4 Description: Gene-based variant burden test results (a) List of 608 Targeted genes. (b) 46 variants
5 used in PolyStrat tests that yielded significant gene-based variant burden. (c) Five genes' candidate
6 variant enrichments in genotyping data.

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8 File Name: Supplementary Data 2

9 Description: Pathway-based variant burden test results for 989 GO terms.

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11 File Name: Supplementary Data 3

12 Description: Candidate variants and their frequencies. (a) 218 candidate variants from five genes.
13 Summary genotyping results of these variants in the (b) 1st cohort, (c) 2nd cohort, and (d) combined
14 (1st + 2nd) cohort.

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16 File Name: Supplementary Data 4

17 Description: Probe sequences for EMSA.

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