

1 **Supplementary Data 1– Excel table showing resulting tag SNPs following pruning.**

2 Each row SNPs (column A) along with its position (column B and C) and the minor or major
3 allele (column D and E) is reported. SNPs selected as a tag SNPs are indicated by “1” in
4 column F and the best tag SNP for each SNP is reported in column G. The degree of linkage
5 disequilibrium between the SNP and its best tag SNP, measured by r^2 , is reported in column
6 H. Best SNPs with an $r^2 > 0.8$ were selected as tag SNPs.

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8 **Supplementary Data 2– Excel table showing GEE models results testing the association**
9 **between each of the 482 SNPs to PAL performance.**

10 Each row reports GEE results of the association between a SNP and PAL performance. SNP,
11 Beta coefficient, Lower confidence interval, Upper confidence interval, p value, number of
12 participants and q value following Benjamini Hochberg correction are reported.

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14 **Supplementary Data 3– Excel table showing GEE models results testing the interaction**
15 **between physical activity (IPAQ) and each of the 482 SNPs on PAL performance.**

16 Each row reports interaction results of each GEE model testing for the interaction between
17 IPAQ and each of the 482 SNPs on PAL performance. SNP, Beta coefficient, Lower
18 confidence interval, Upper confidence interval, number of participants, interaction p value
19 and interaction q value following Benjamini Hochberg correction are reported.

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21 **Supplementary Data 4– Excel table showing GEE models results testing the interaction**
22 **between Mediterranean Diet Score (MDS) and each of the 482 SNPs on PAL performance.**

23 Each row reports interaction results of each GEE model testing for the interaction between
24 MDS and each of the 482 SNPs on PAL performance. SNP, Beta coefficient, Lower
25 confidence interval, Upper confidence interval, number of participants, interaction p value
26 and interaction q value following Benjamini Hochberg correction are reported.

27 **Supplementary Data 5– Excel table reporting the raw data behind graphs shown in Figure**
28 **2.**

29 Data from each graph is reported in a separate tab. X and Y axis labels are reported in the
30 first row in each tab.

31 **Supplementary Data 6– Excel table reporting the raw data behind graphs shown in Figure**
32 **3.**

33 Data from each graph is reported in a separate tab. X and Y axis labels are reported in the
34 first row in each tab.

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