



Figure S7. Details of the three significant gene-trait associations. (a) to (c) Beta is plotted against single variant $-\log_{10} p$ -value for all variants that constitute the gene test for the associations *TDO2*—tryptophan (a), *CERS4*—sphingomyeline C18:0 (b), and *SLC22A5*—carnitine (c). The minor allele count in the WES combined set is given below or above each point. (d) to (f) Quantile-quantile plots of observed versus expected p -values for the associations *TDO2*—tryptophan (d), *CERS4*—sphingomyeline C18:0 (e), and *SLC22A5*—carnitine (f).