S18 Fig: Scenario I: QQ plots for null data from two independent bi-ethnic case-parent trio studies of OFC subgroups assuming fixed genetic effects. Observed (−log₁₀p-values) are plotted on the y-axis and Expected (−log₁₀p-values) on the x-axis. Type I error performance of tests of simultaneous effect of a genetic variant on both outcomes is based on 9.99 million null variants with genetic effects that are either {RR\textsubscript{CL/P} = 1, RR\textsubscript{CP} = 1} or {RR\textsubscript{CL/P} = 1, RR\textsubscript{CP} = 1.15} or {RR\textsubscript{CL/P} = 1.15, RR\textsubscript{CP} = 1}. The gray shaded region represents a conservative 95% confidence interval for the expected distribution of p-values. P-values ≥ 10^{-12} are shown here.