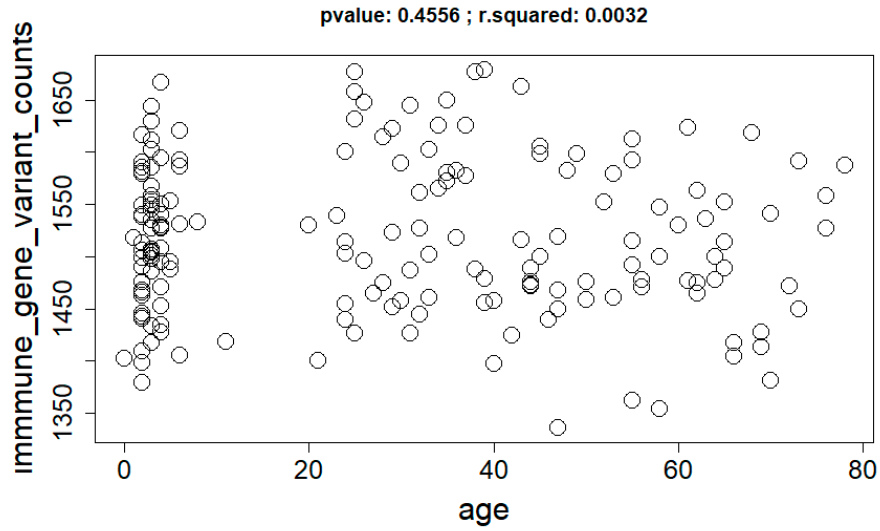
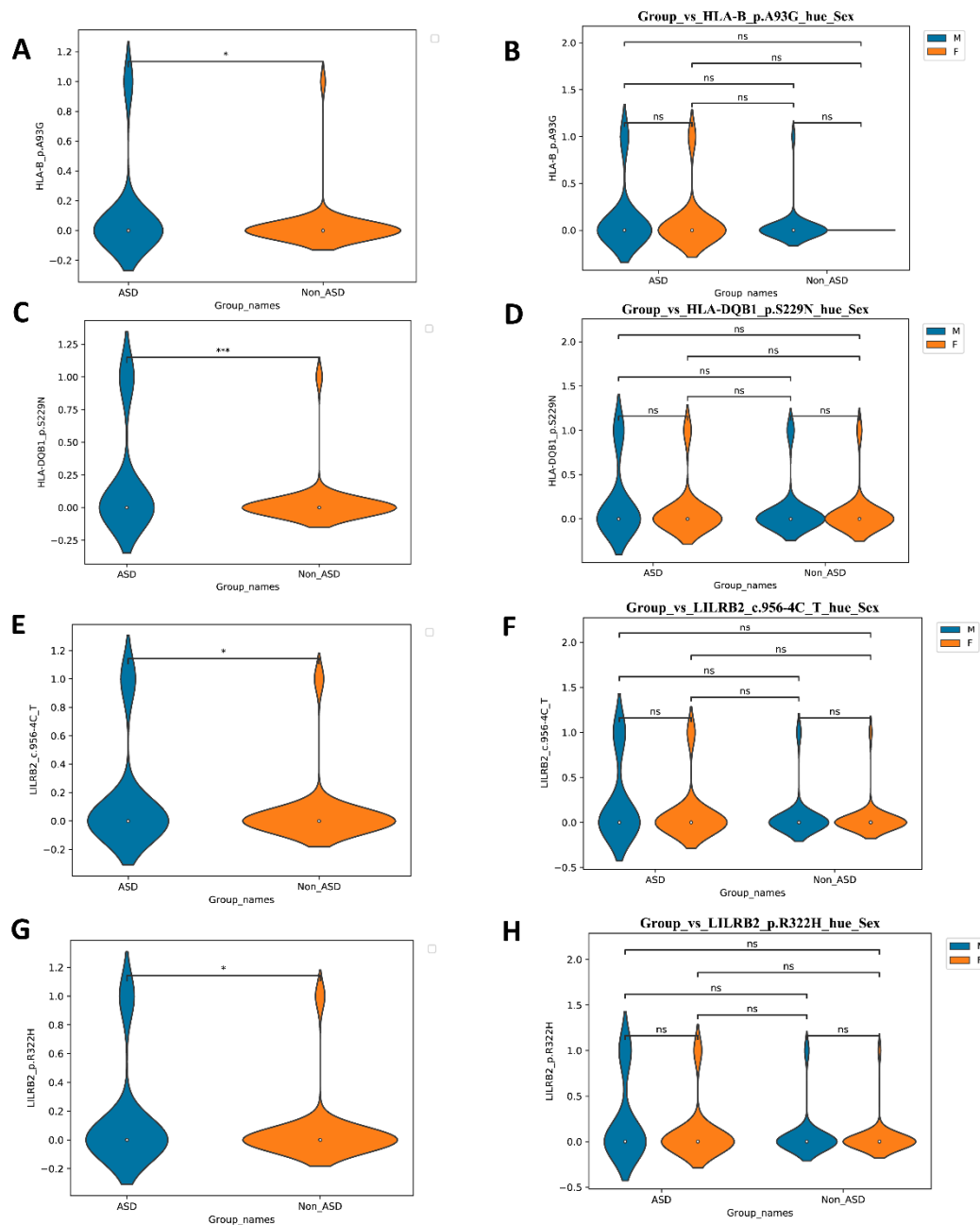


## Supplementary Appendix

### Supplementary Figures



**Supplementary Figure S1. The effect of age on immune gene variant counts.** The `lm.fit()` function in the R software was used to perform a linear fitting analysis on the age and the total number of immune gene variants in each sample. The calculated p value was 0.4556 and R-squared was 0.0032, indicating that age effect on the number of immune gene variants is limited.



**Supplementary Figure S2. The effect of sex on ASD-related immune gene variants.** Considering that gender is a potential confounding factor for ASD, gender was used as a covariate to evaluate its effect on the four candidate ASD-related immune gene variants, showing that gender had no effect on these variants. **A**, group\_vs\_HLA-B\_p.A93G; **B**, Group\_vs\_HLA-B\_p.A93G\_hue\_Sex; **C**, group\_vs\_HLA-DQB1\_p.S229N; **D**, Group\_vs\_HLA-DQB1\_p.S229N\_hue\_Sex; **E**, group\_vs\_LILRB2\_c.956-4C\_T; **F**, Group\_vs\_LILRB2\_c.956-4C\_T\_hue\_Sex; **G**, group\_vs\_LILRB2\_p.R322H; **H**, Group\_vs\_LILRB2\_p.R322H\_hue\_Sex.