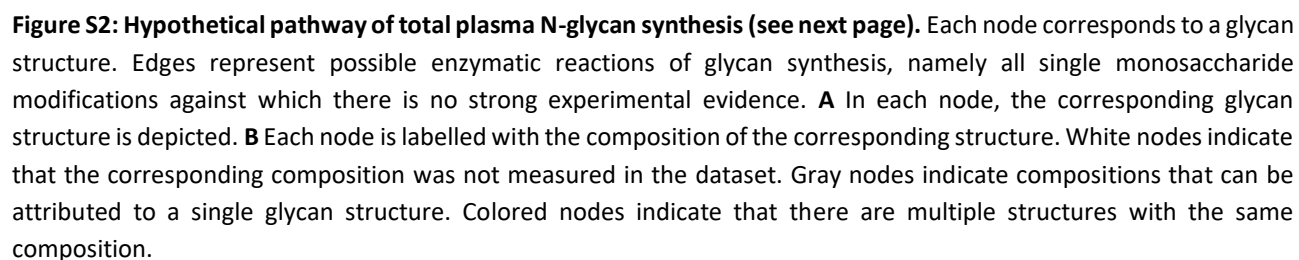


Figure S1: Reference pathway for IgG UHPLC-FLD data. IgG glycans include monosaccharides such as mannose, N-acetylglucosamine, galactose, fucose and sialic acid. Since each of this platform measures a slightly different set of IgG glycans than LC-ESI-MS, the reference pathway was adapted to fit the structures quantified in the respective dataset.



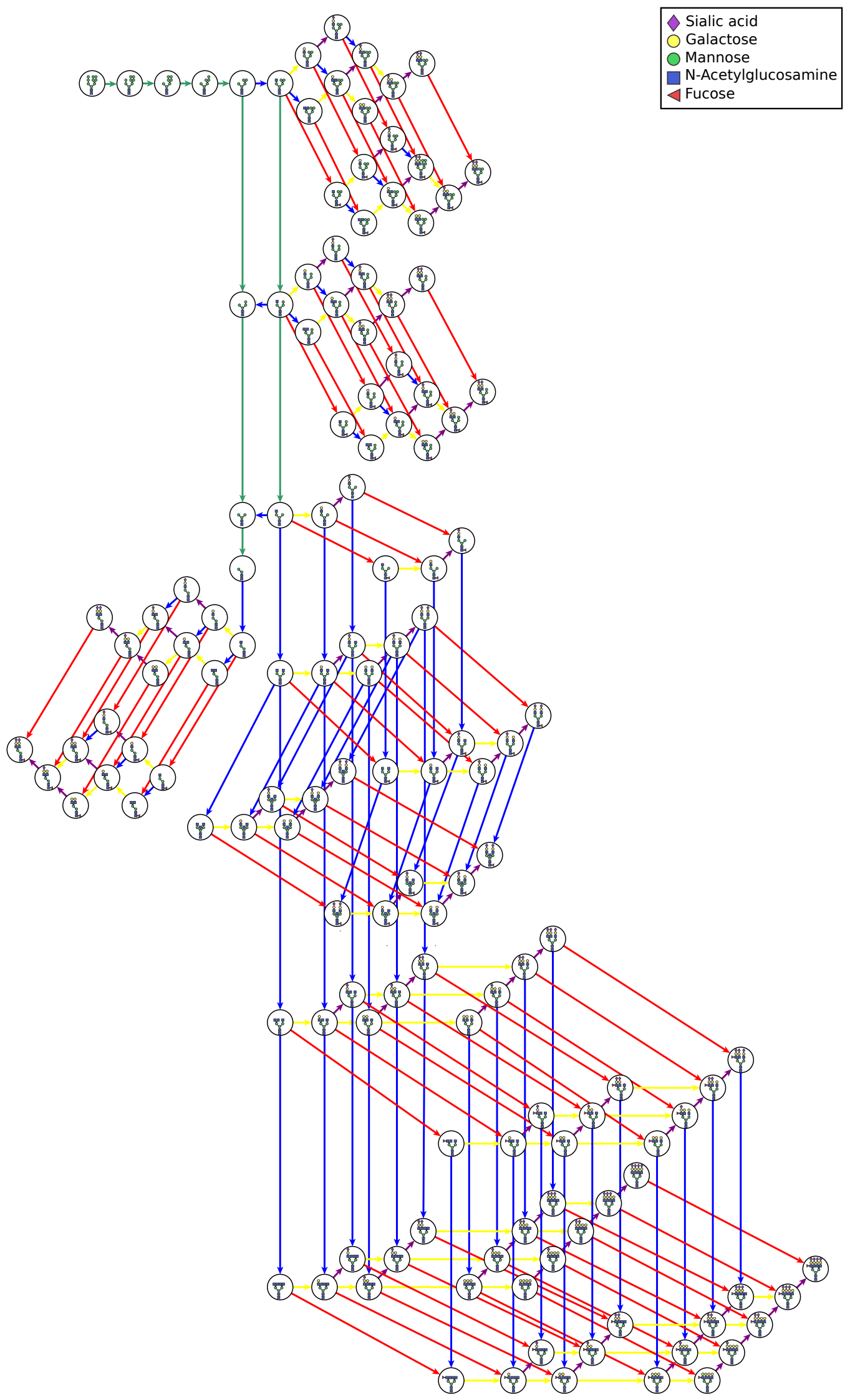


Figure S5: LC-ESI-MS normalization analysis results (Korčula 2010 cohort). Results in the panels are colored according to type of normalization (left), log-transformation (center), or normalization per IgG subclass or total IgG (right). Bars represent the median of the Fisher’s exact test p-values over 1,000 bootstrapping, and error bars the corresponding 95% confidence intervals.

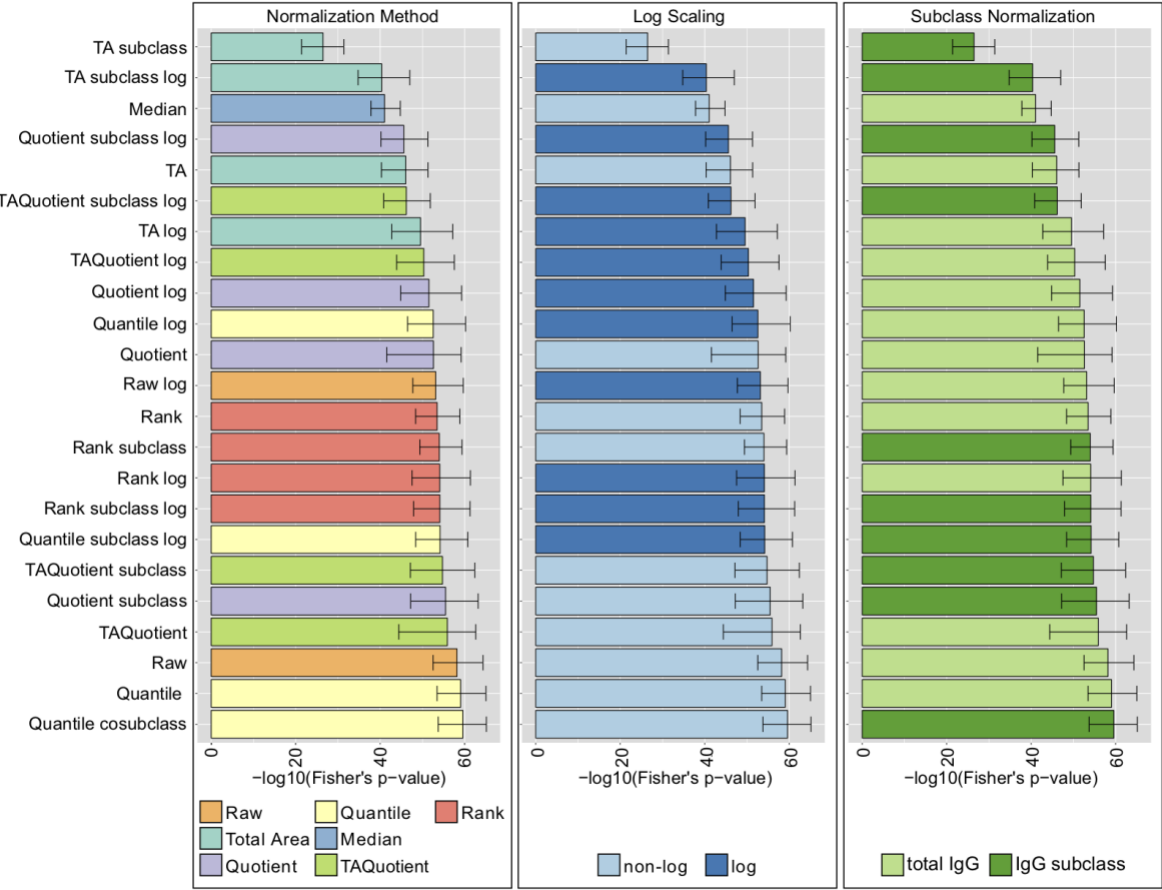


Figure S6: LC-ESI-MS normalization analysis results (Split cohort). Results in the panels are colored according to type of normalization (left), log-transformation (center), or normalization per IgG subclass or total IgG (right). Bars represent the median of the Fisher’s exact test p-values over 1,000 bootstrapping, and error bars the corresponding 95% confidence intervals.

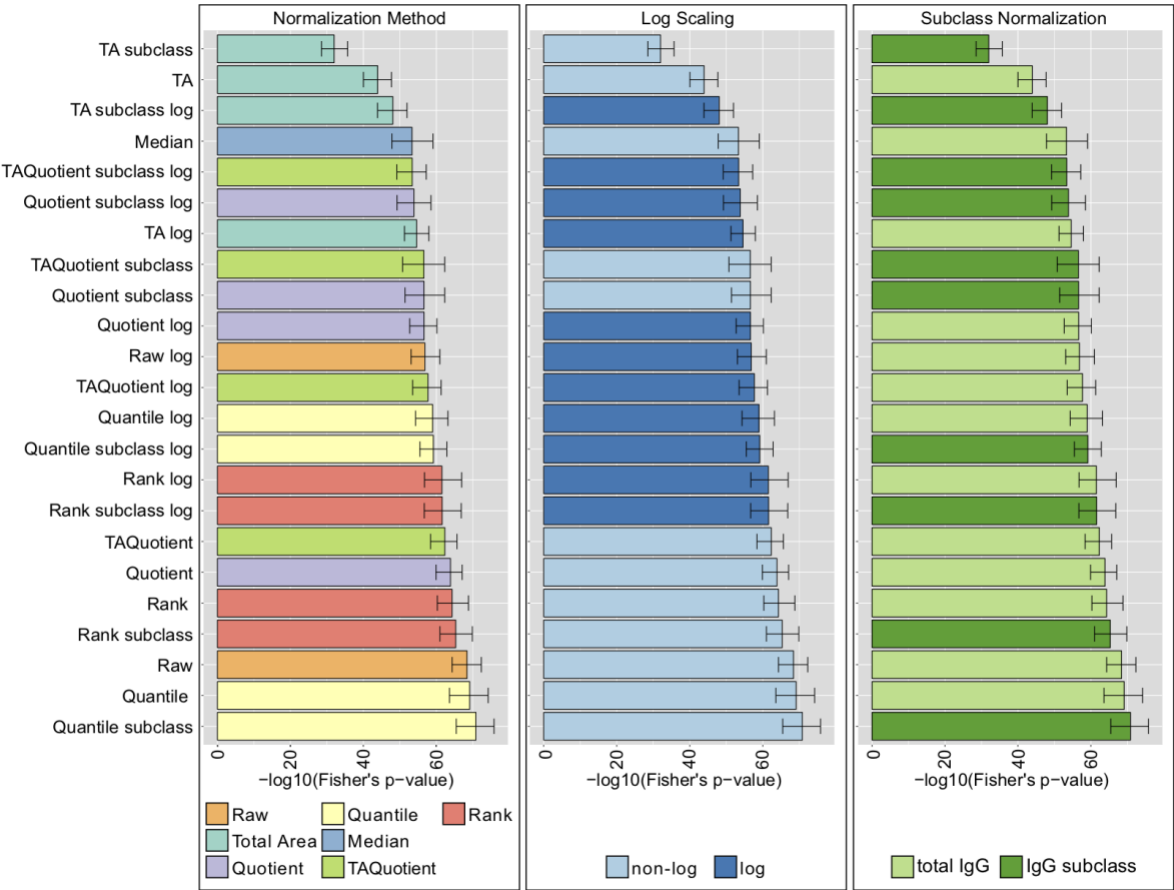


Figure S7: LC-ESI-MS normalization analysis results (Vis cohort). Results in the panels are colored according to type of normalization (left), log-transformation (center), or normalization per IgG subclass or total IgG (right). Bars represent the median of the Fisher's exact test p-values over 1,000 bootstrapping, and error bars the corresponding 95% confidence intervals.

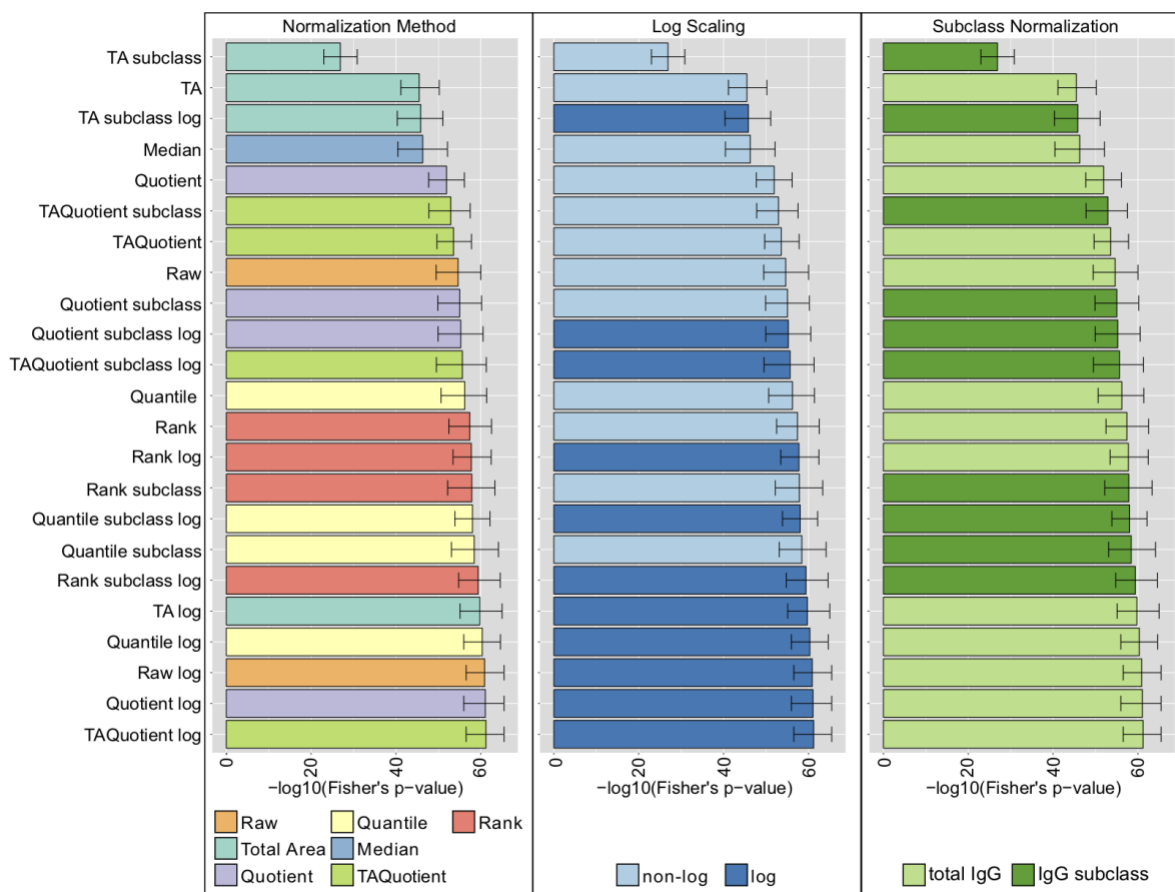
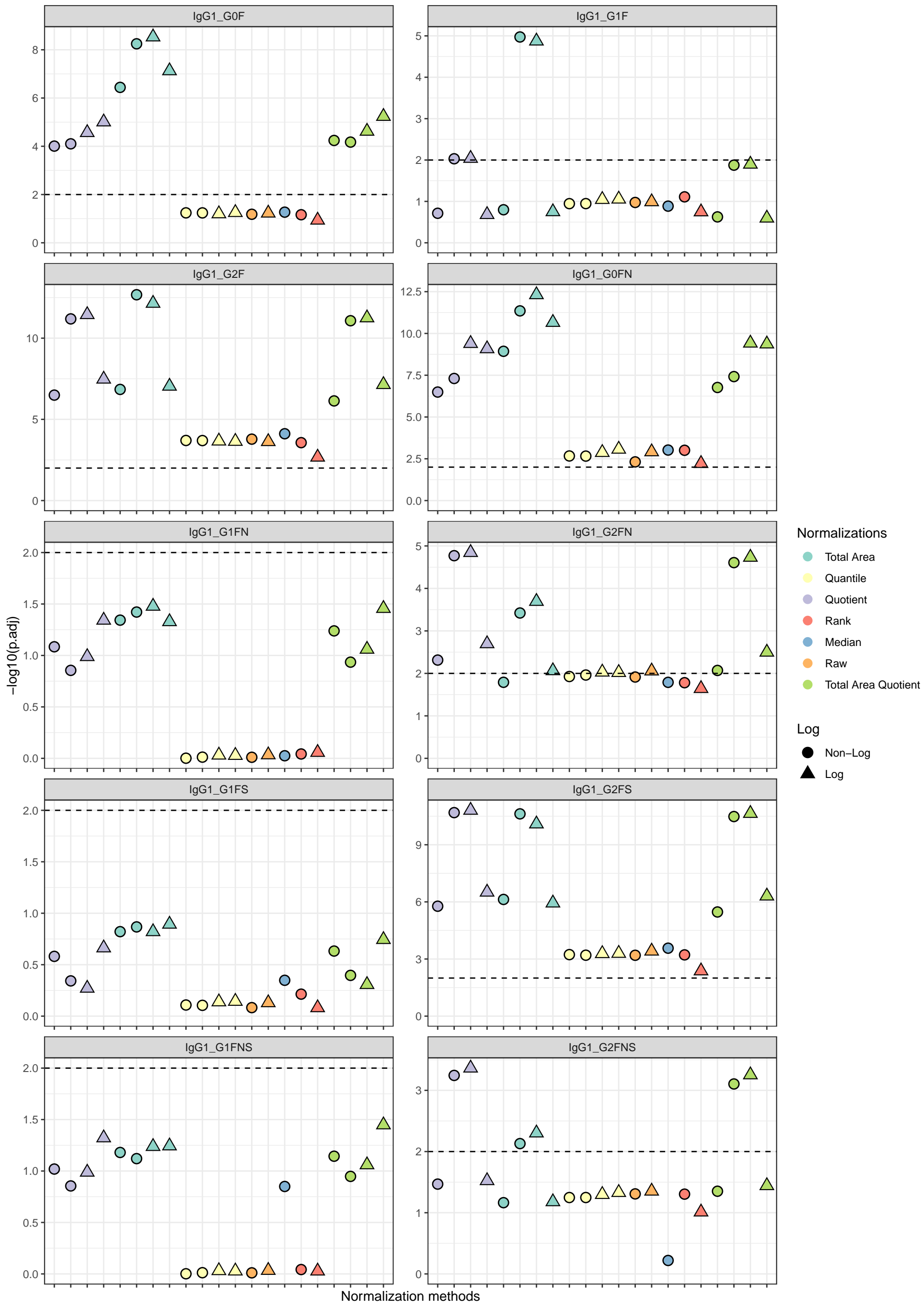
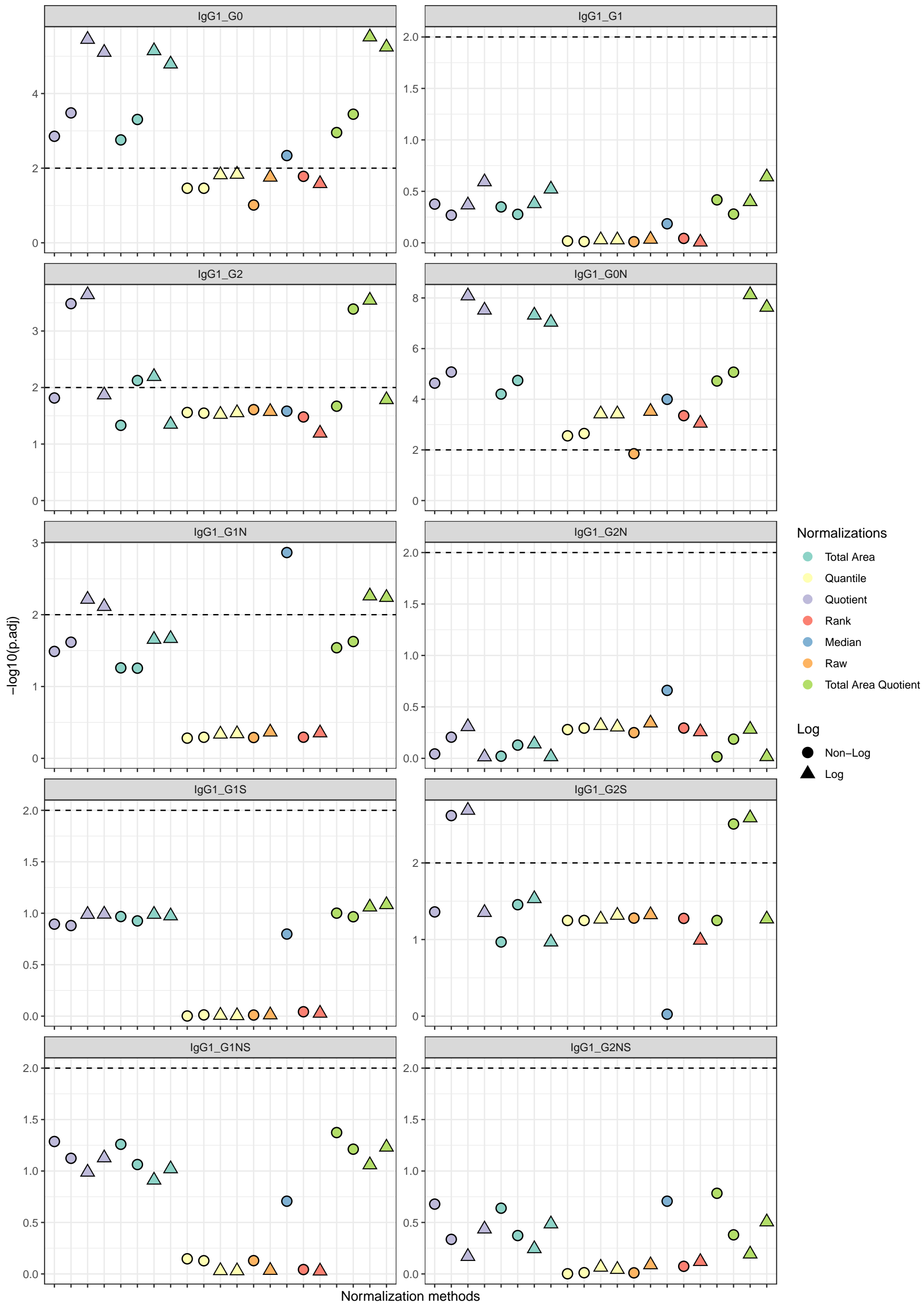


Figure S8: associations with age (see next page). Each panel displays the adjusted p-value of the association of the corresponding glycan feature with age for the different normalizations considered in the six cohorts considered. The black dashed line represents the False Discovery Rate 0.05 significance threshold. Therefore, all points above the line indicate a statistically significant association.

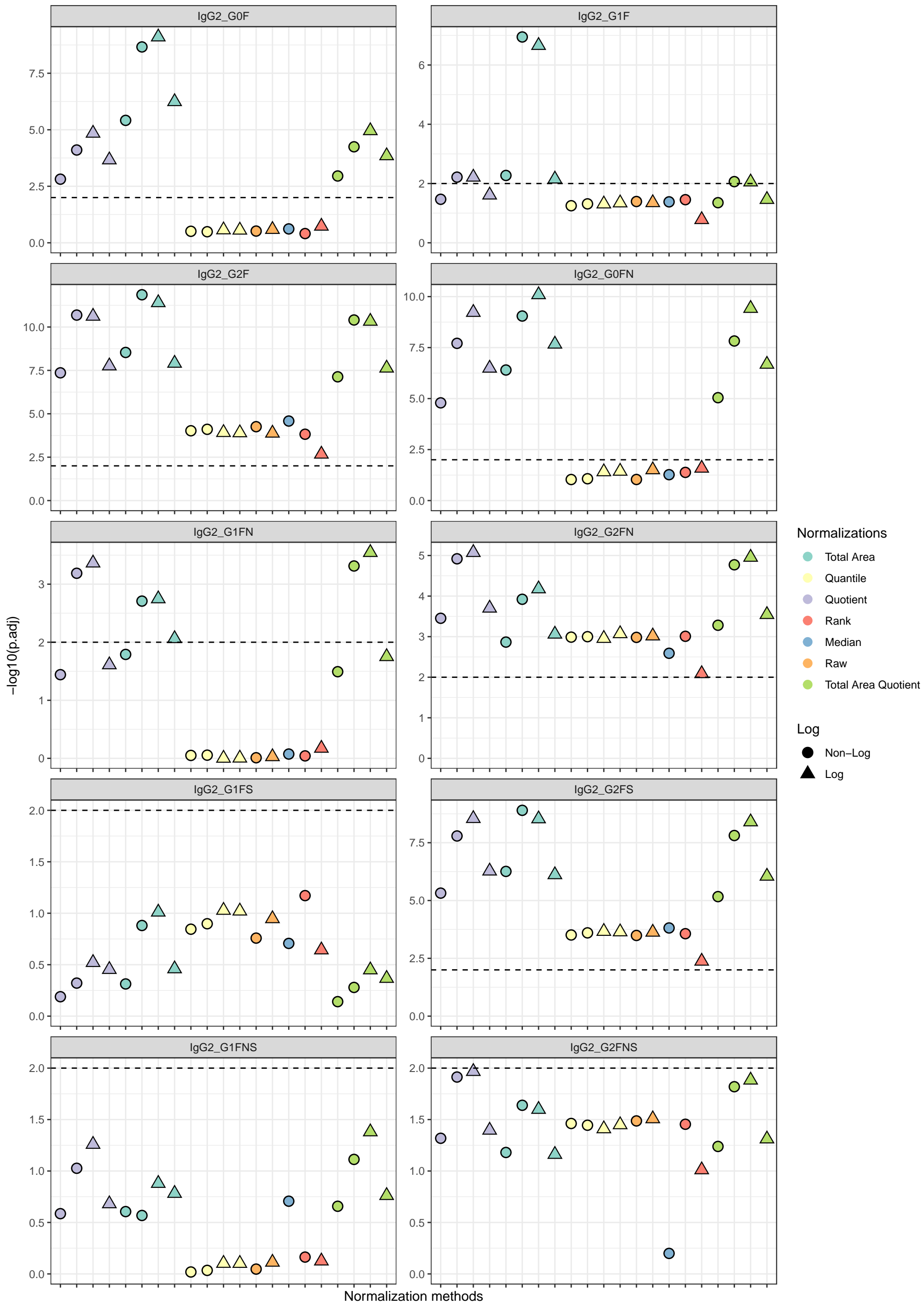
Korcula2: Glycan ~ Age



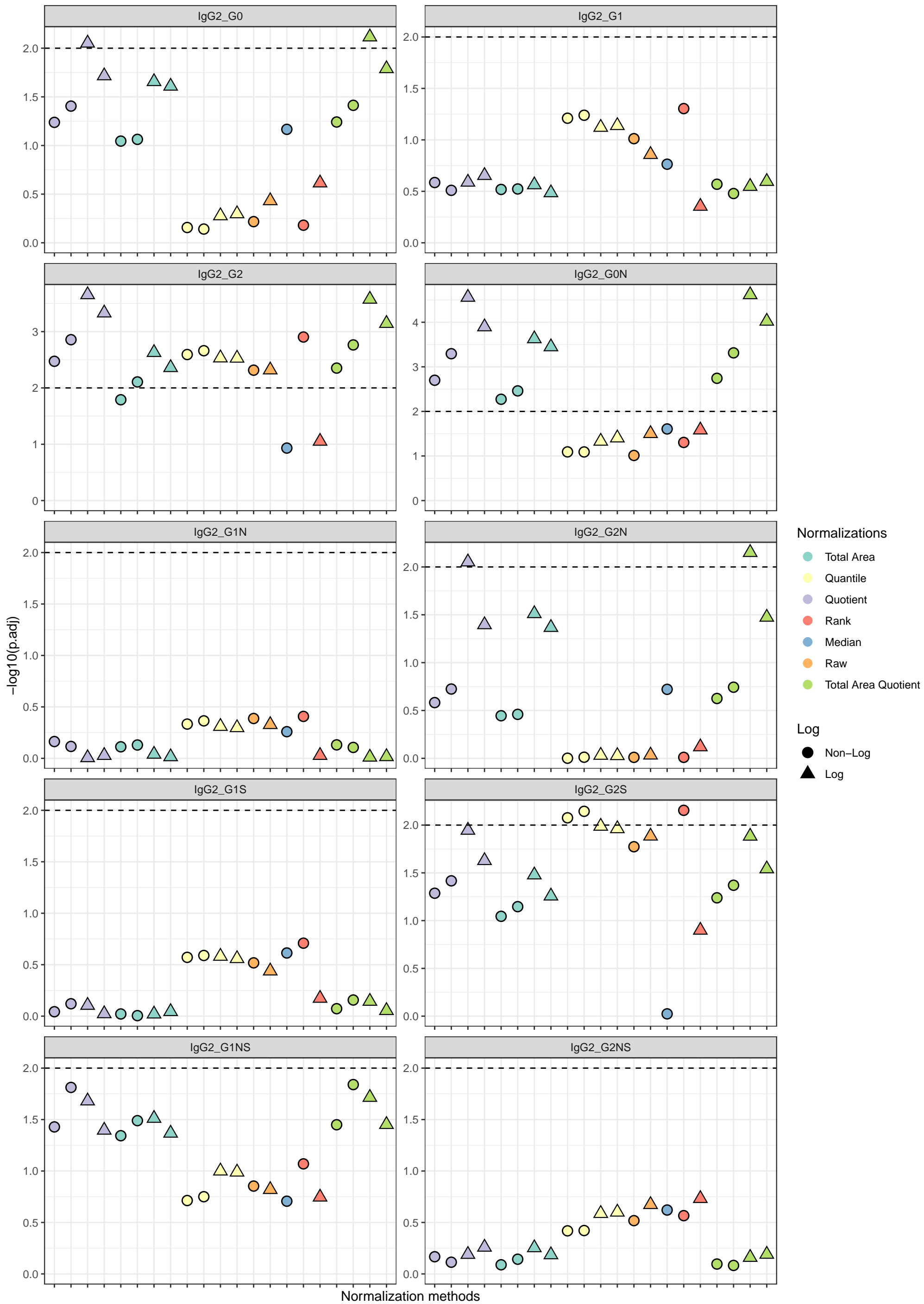
Korcula2: Glycan ~ Age



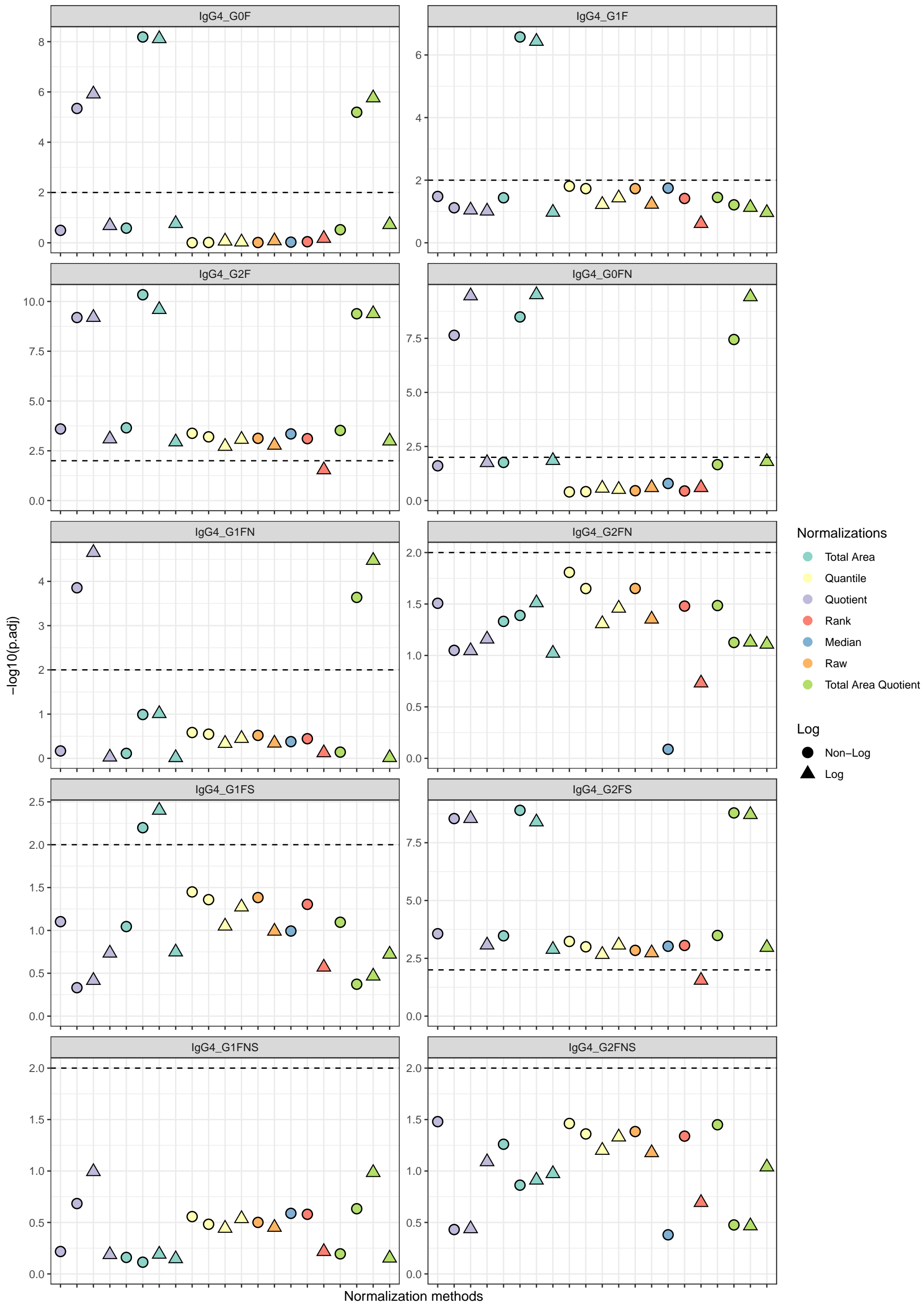
Korcula2: Glycan ~ Age



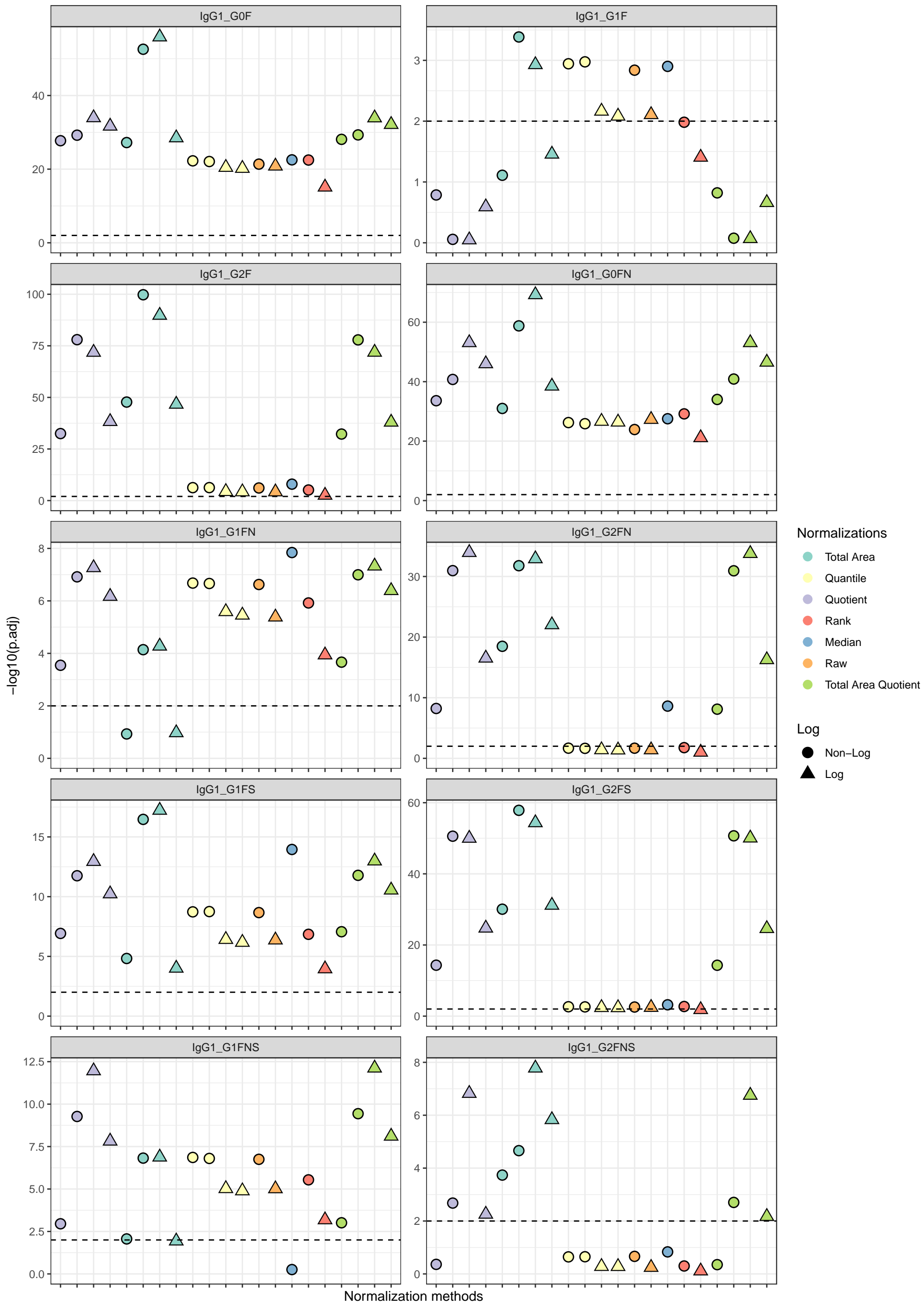
Korcula2: Glycan ~ Age



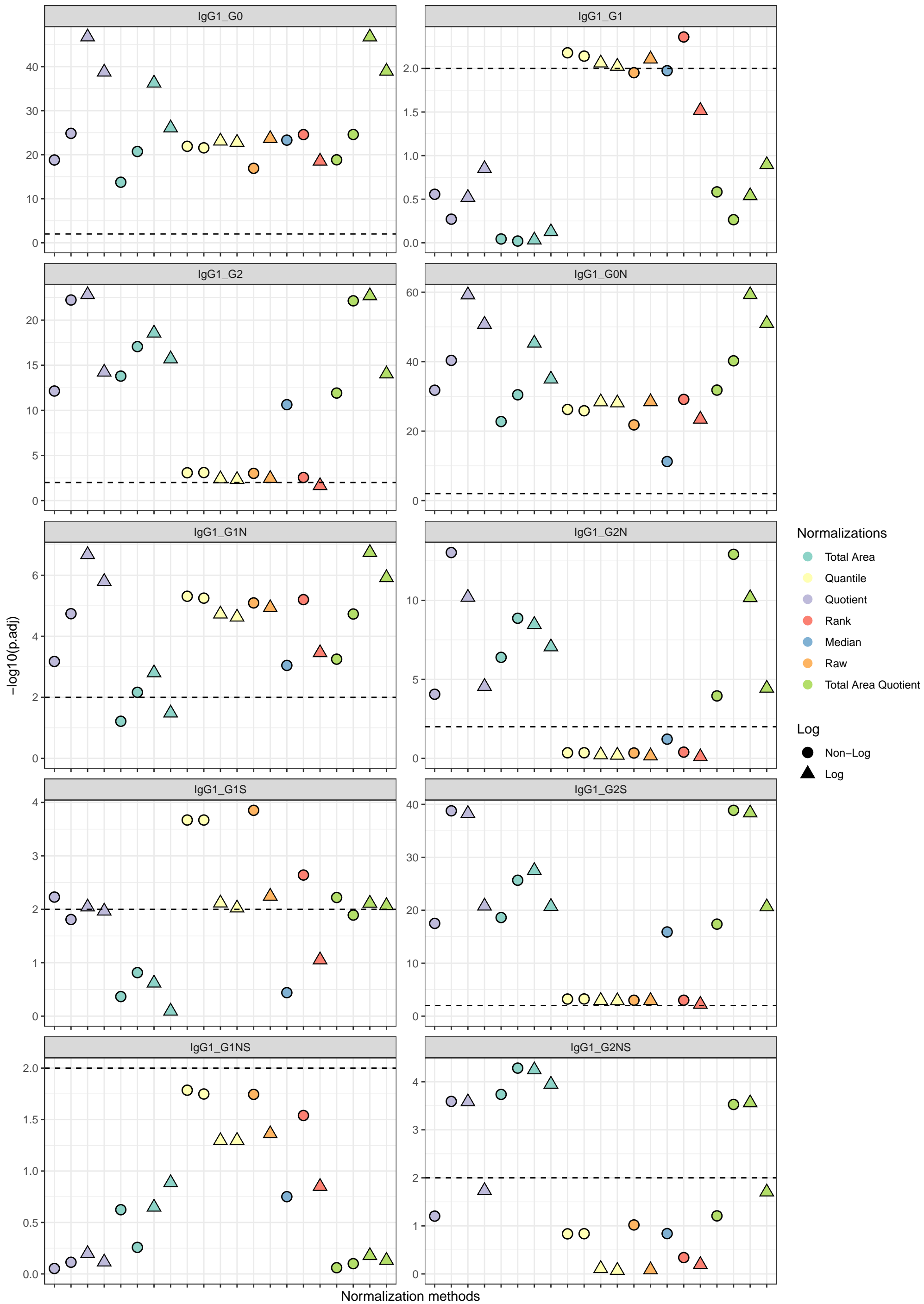
Korcula2: Glycan ~ Age



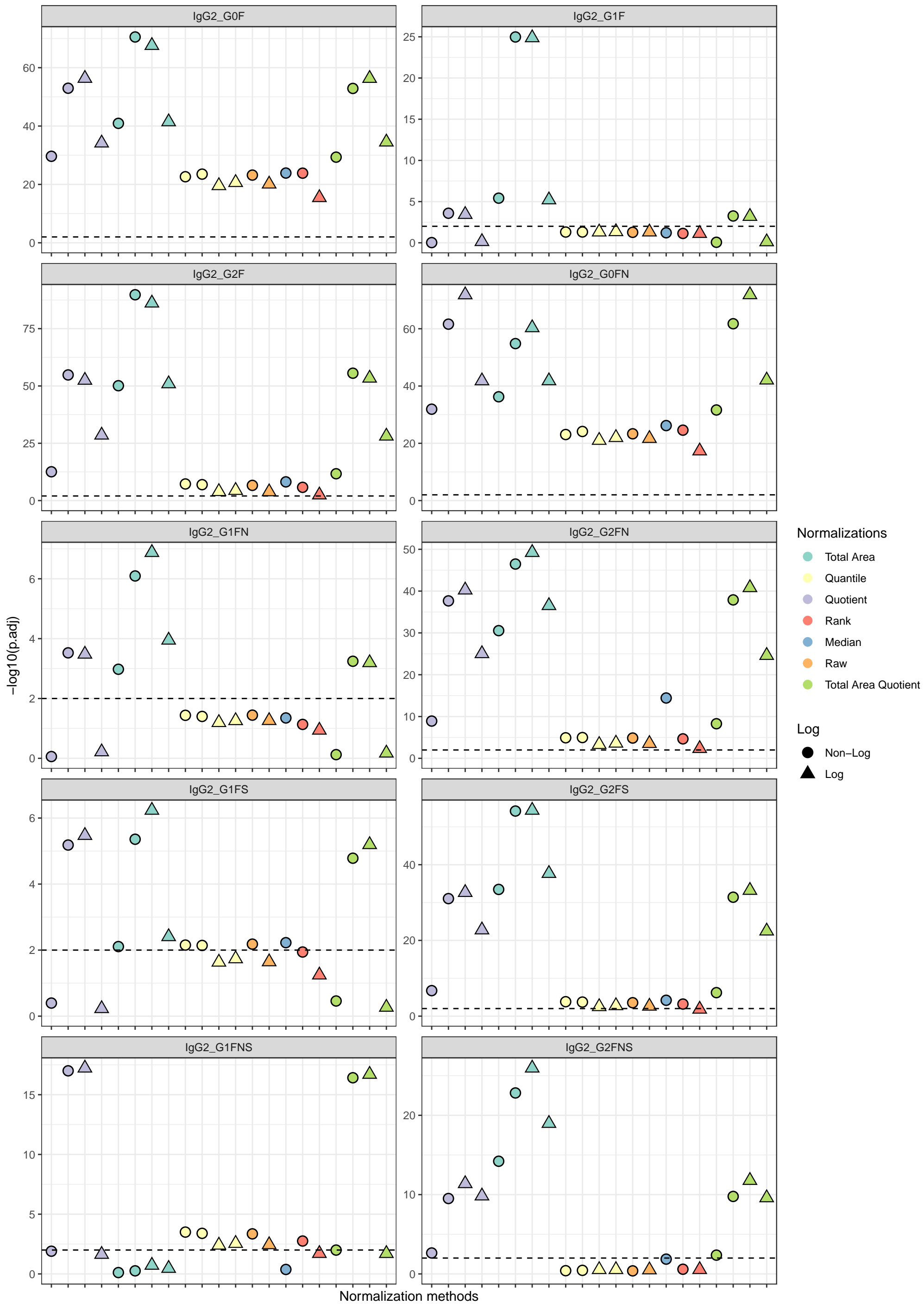
Korcula: Glycan ~ Age



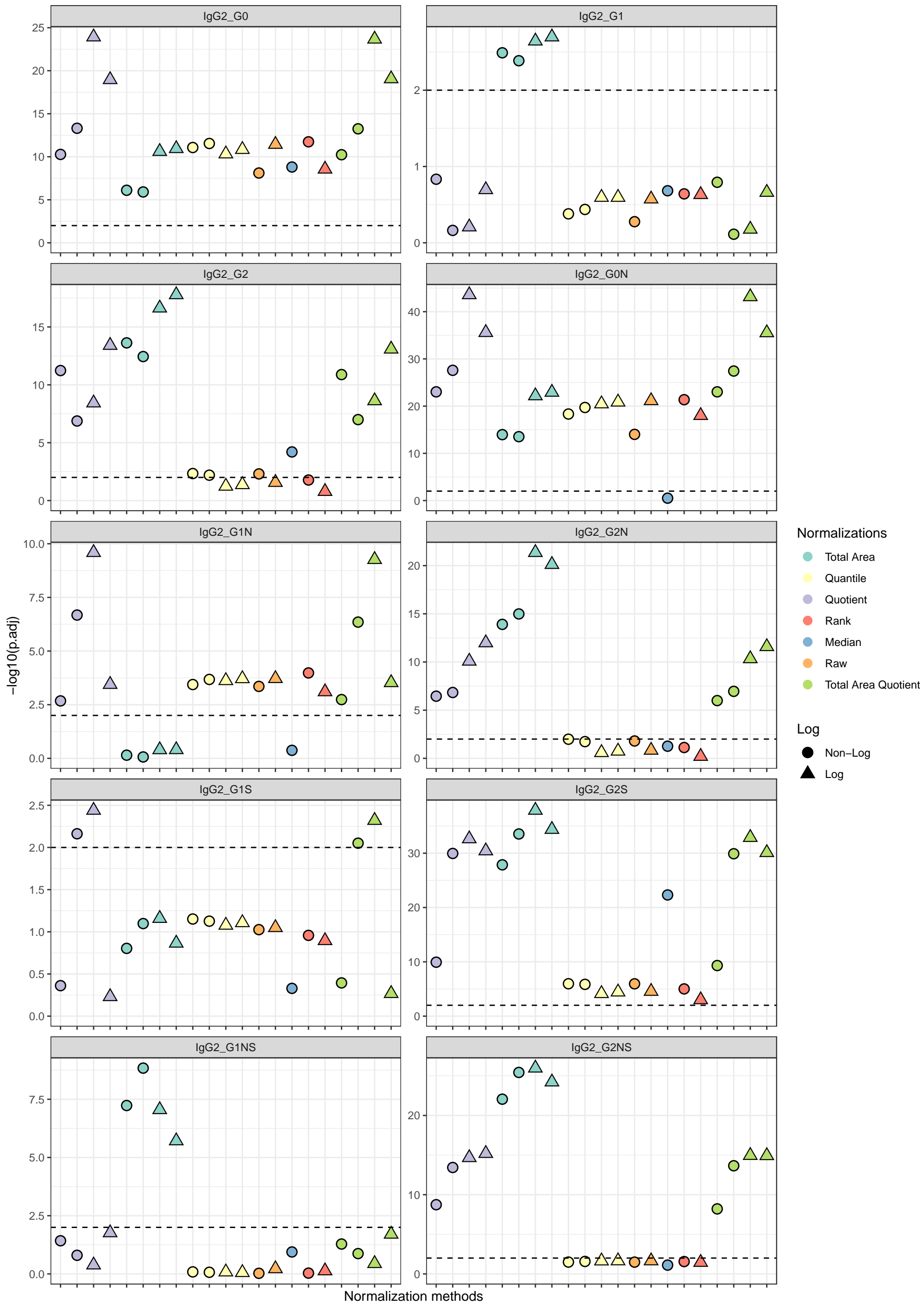
Korcula: Glycan ~ Age



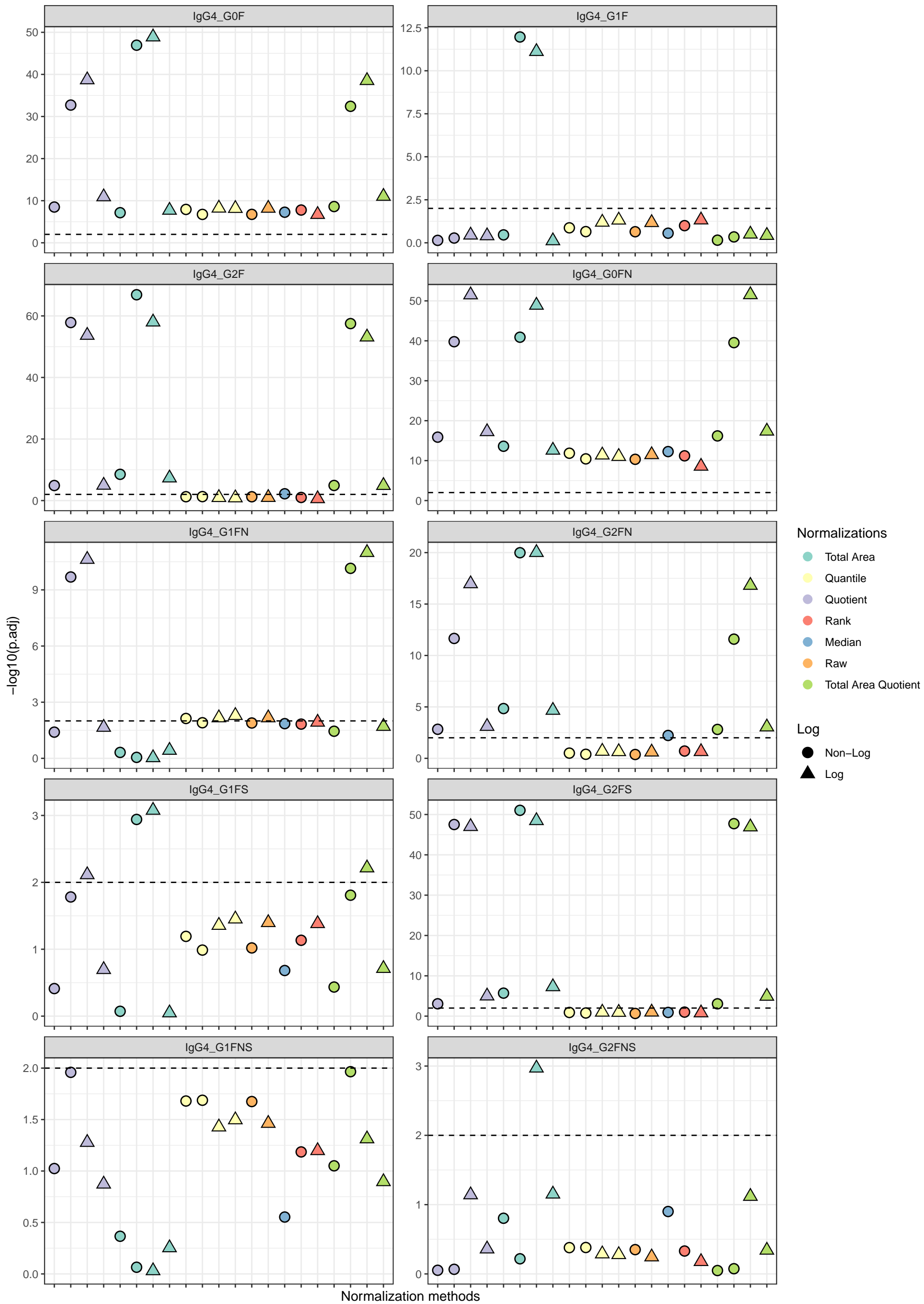
Korcula: Glycan ~ Age



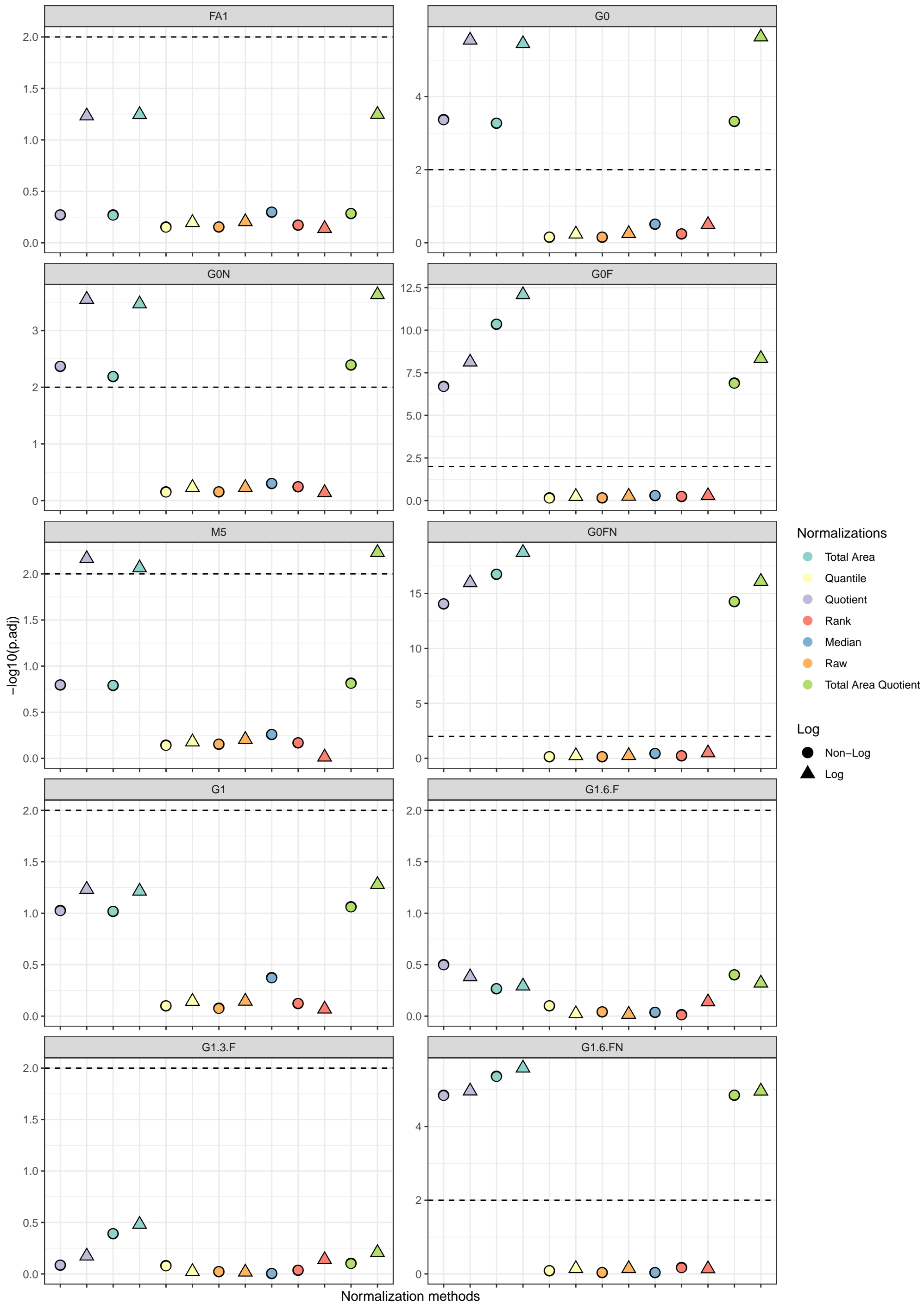
Korcula: Glycan ~ Age



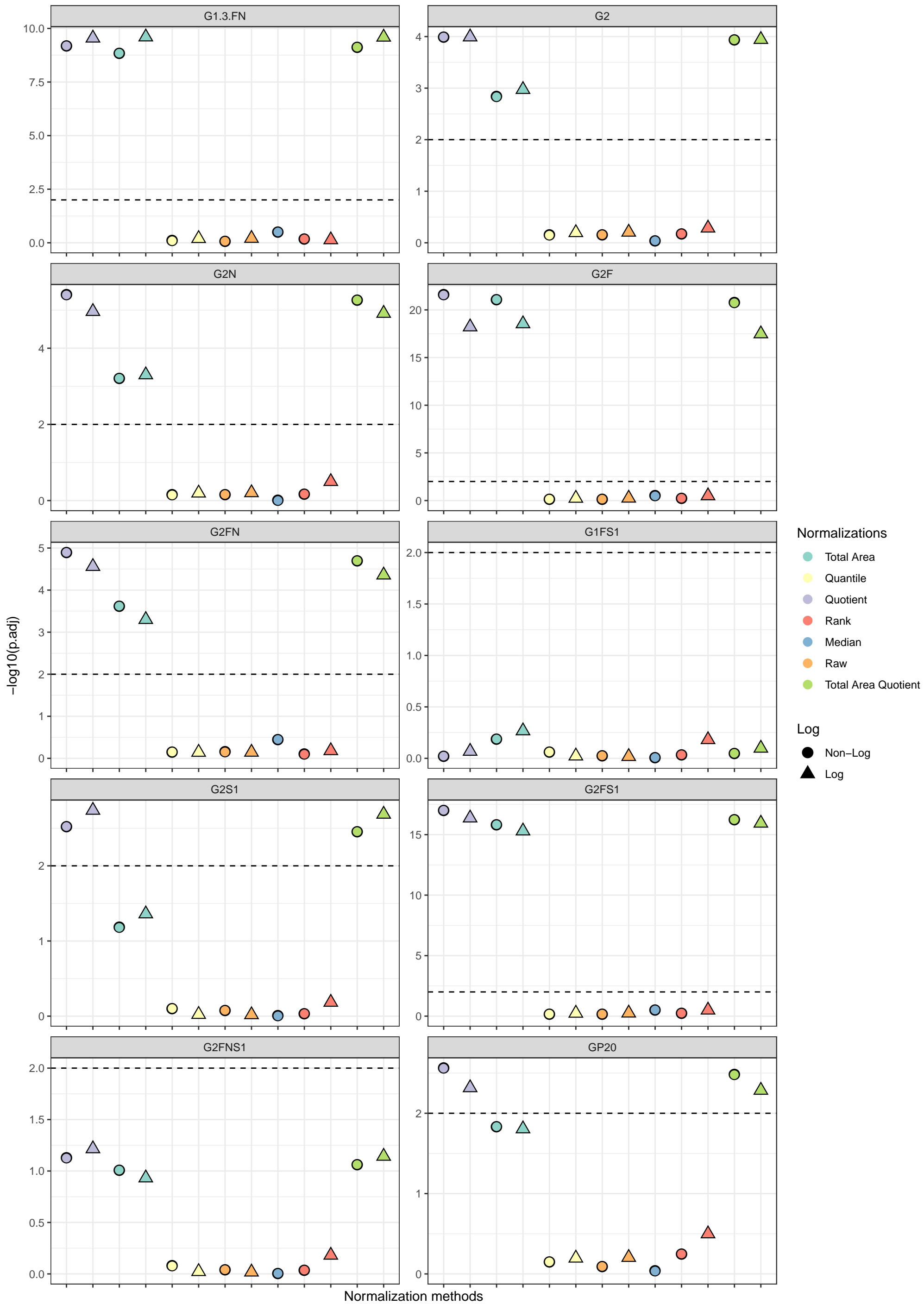
Korcula: Glycan ~ Age



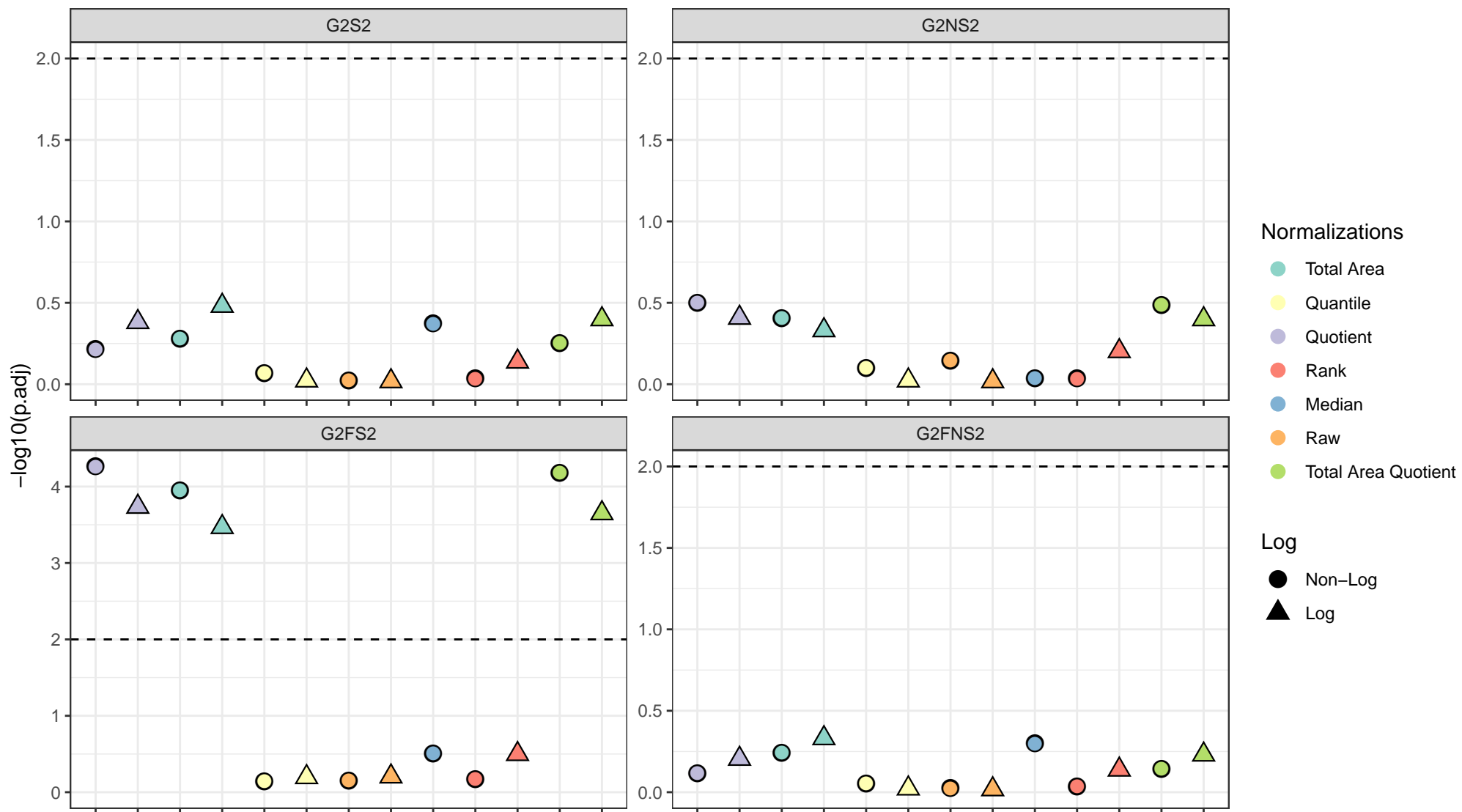
CRC cohort: Glycan ~ Age



CRC cohort: Glycan ~ Age

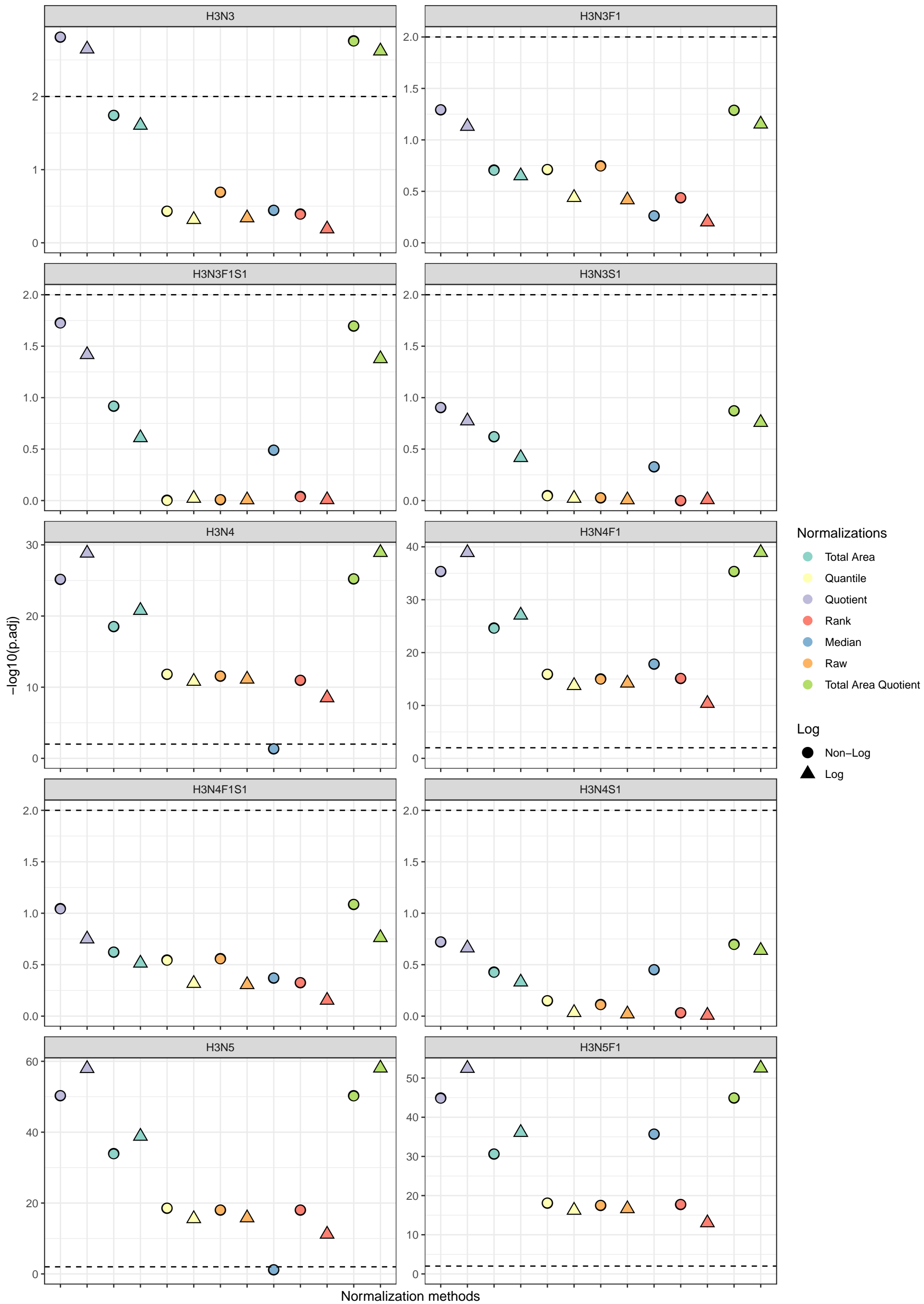


CRC cohort: Glycan ~ Age

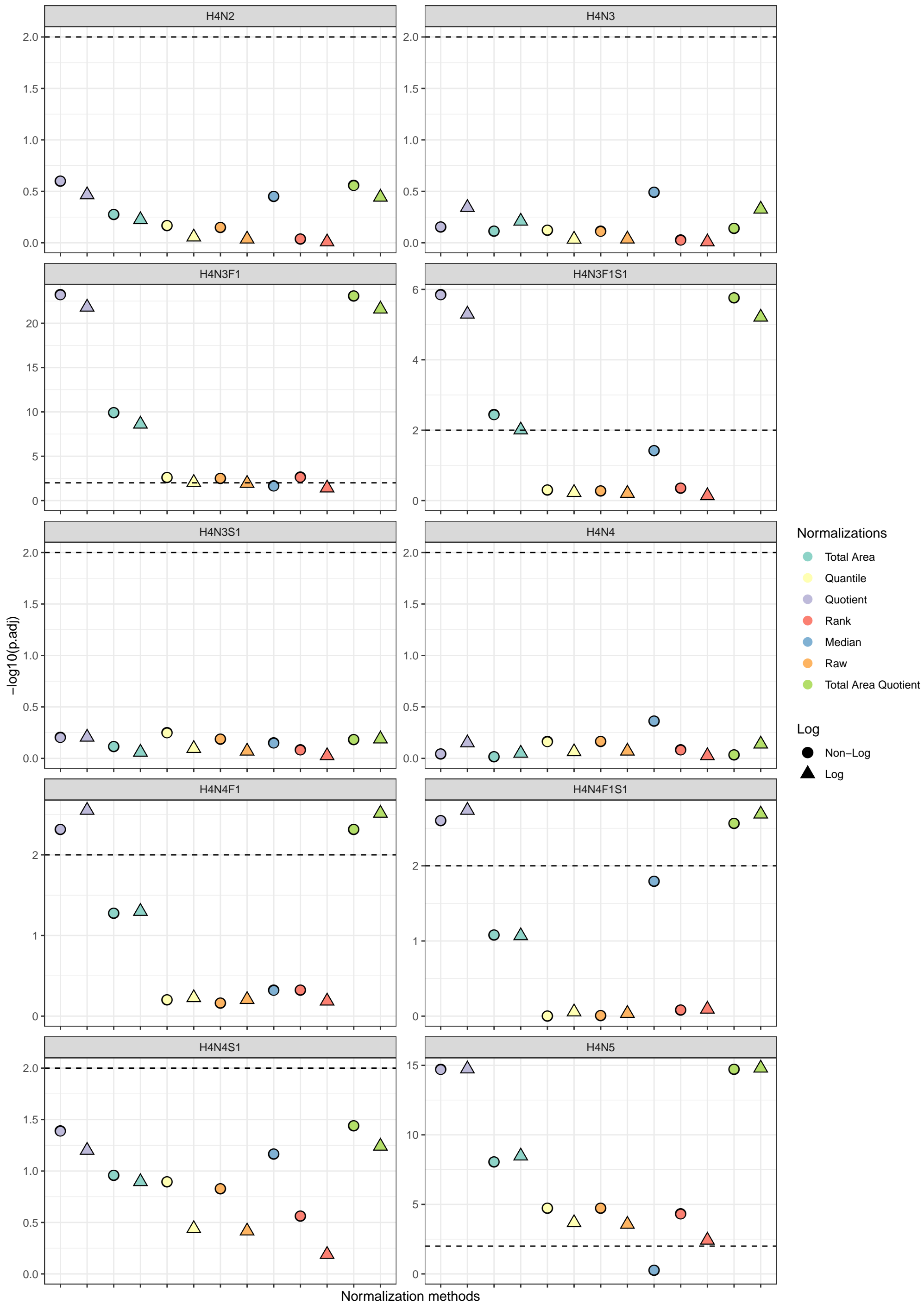


Normalization methods

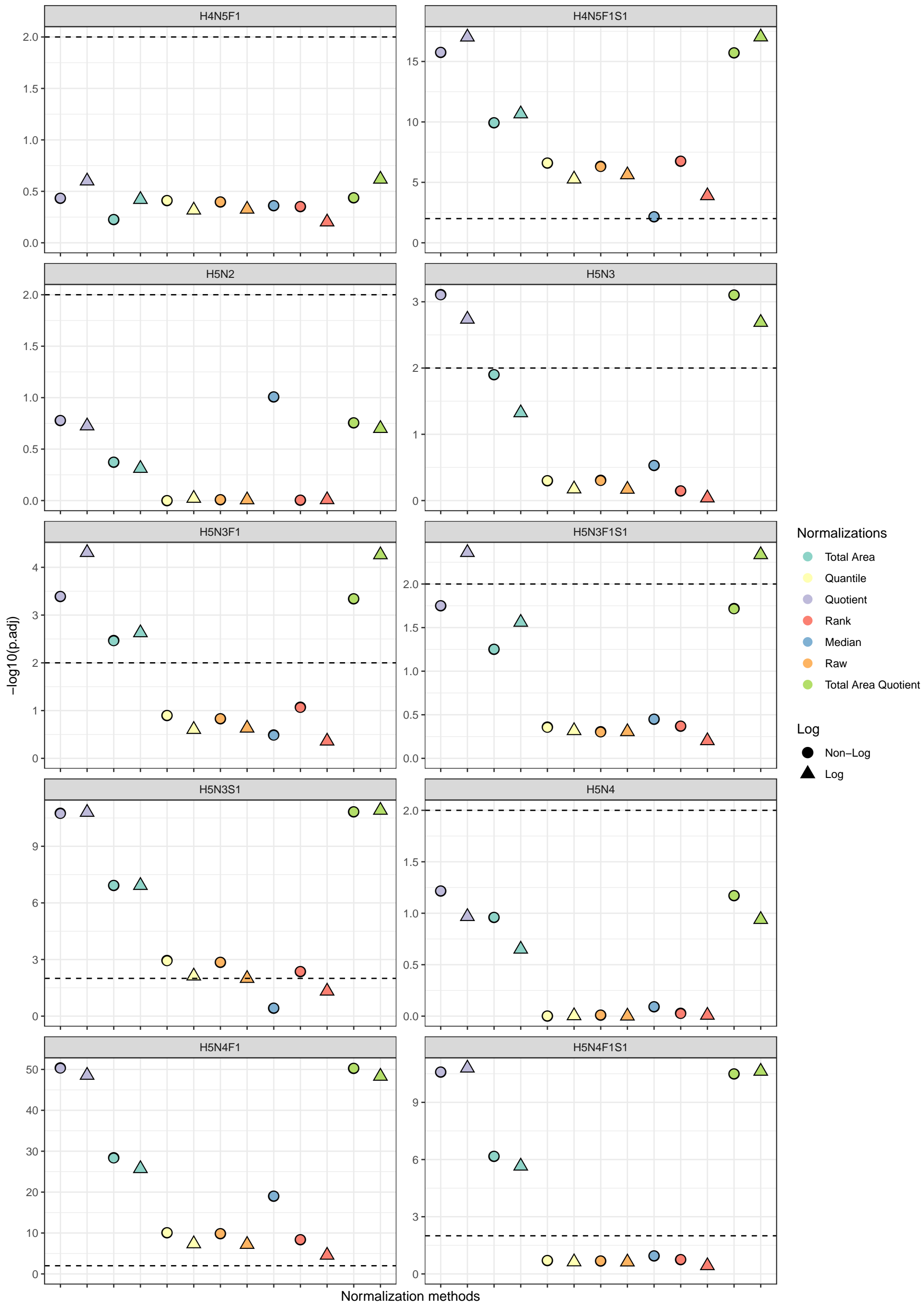
LLS cohort: Glycan ~ Age



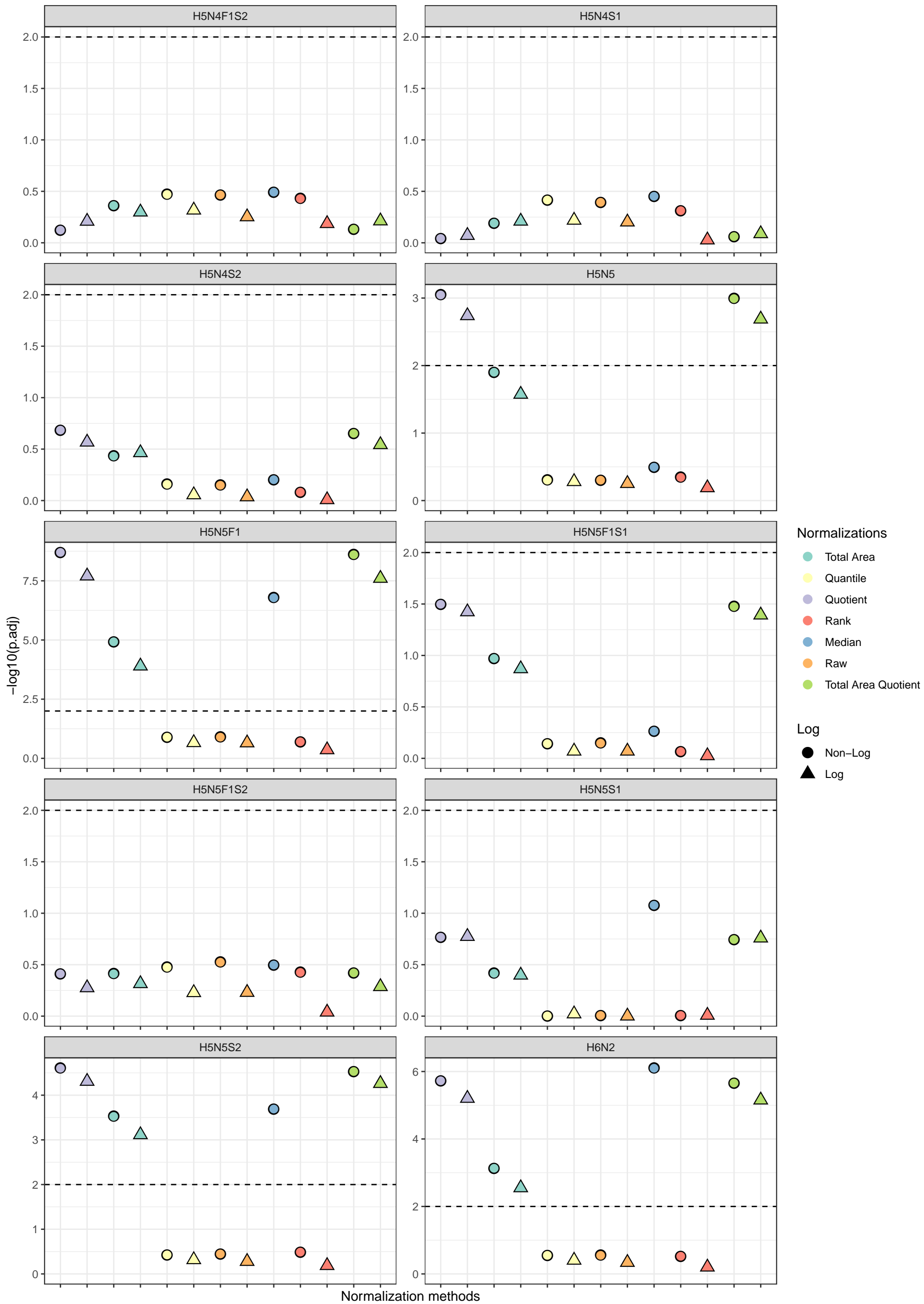
LLS cohort: Glycan ~ Age



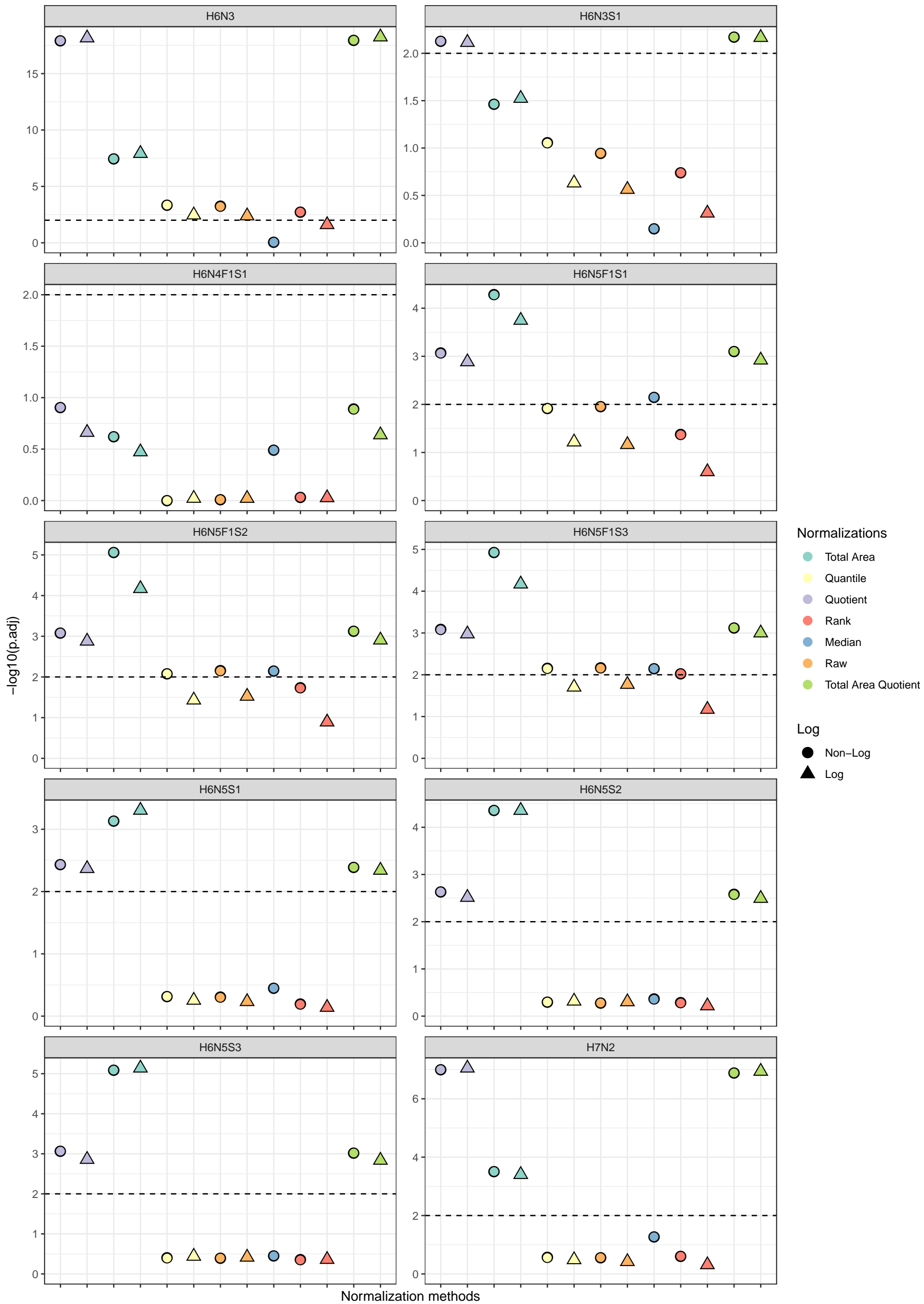
LLS cohort: Glycan ~ Age



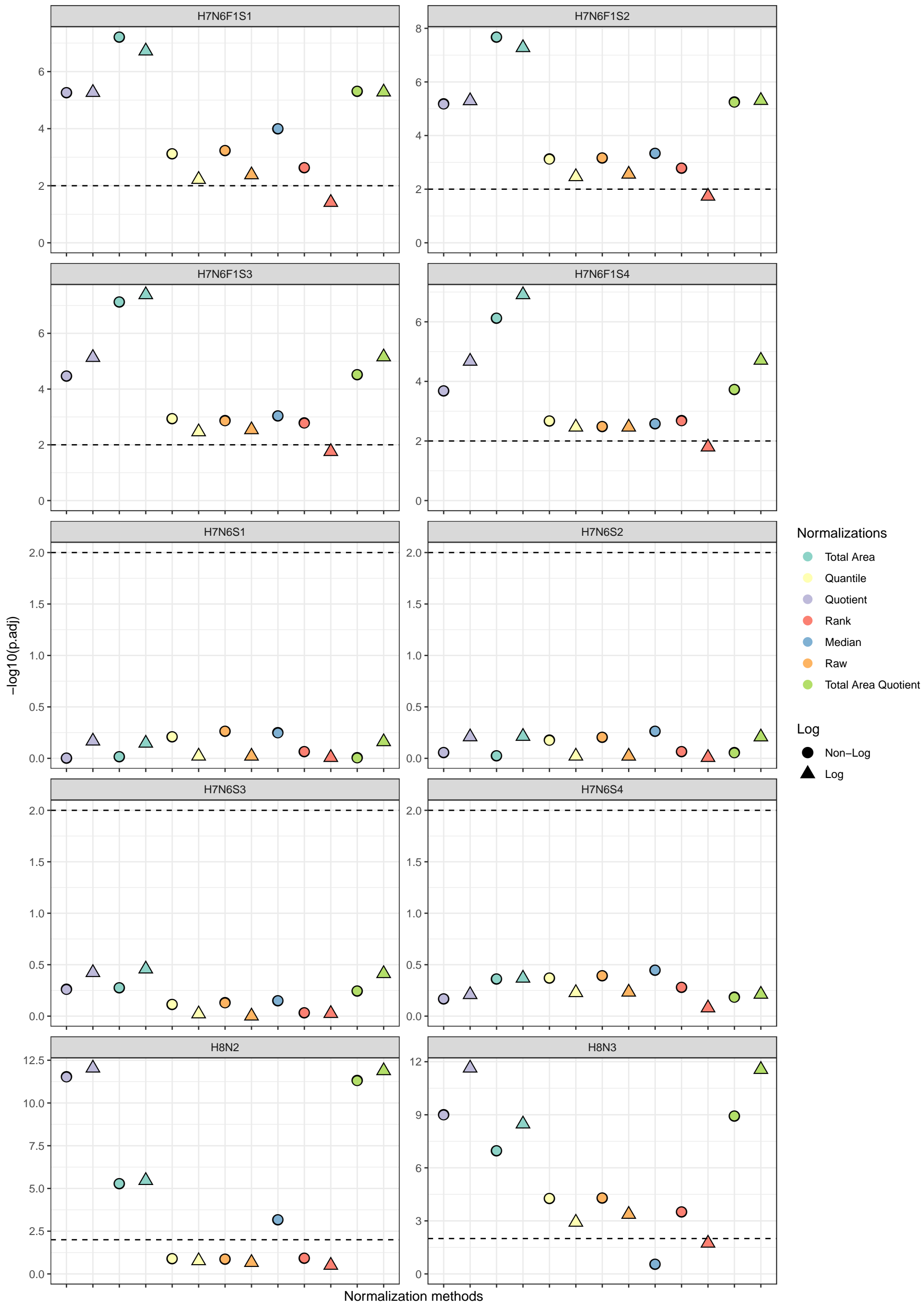
LLS cohort: Glycan ~ Age



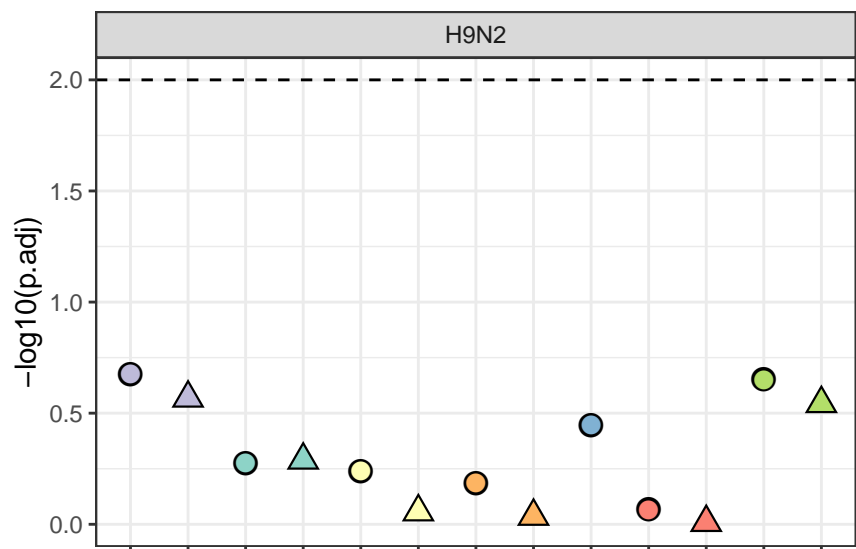
LLS cohort: Glycan ~ Age



LLS cohort: Glycan ~ Age



LLS cohort: Glycan ~ Age



Normalizations

- Total Area
- Quantile
- Quotient
- Rank
- Median
- Raw
- Total Area Quotient

Log

- Non-Log
- Log

Normalization methods