

SLE Patients B cells repertoire analysis

HC vs SLE IgH in PBMC

AntibodyMap

<http://antibodymap.org/>

- Observed Antibody Space (OAS) Database
- Collates >1B redundant antibody sequences from 60 studies
- Identified bulk sequenced blood B cells
 - Healthy Controls
 - SLE patients

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Nat Immunol. 2015 July ; 16(7): 755–765. doi:10.1038/ni.3175.

Diversity, cellular origin and autoreactivity of antibody-secreting cell expansions in acute Systemic Lupus Erythematosus

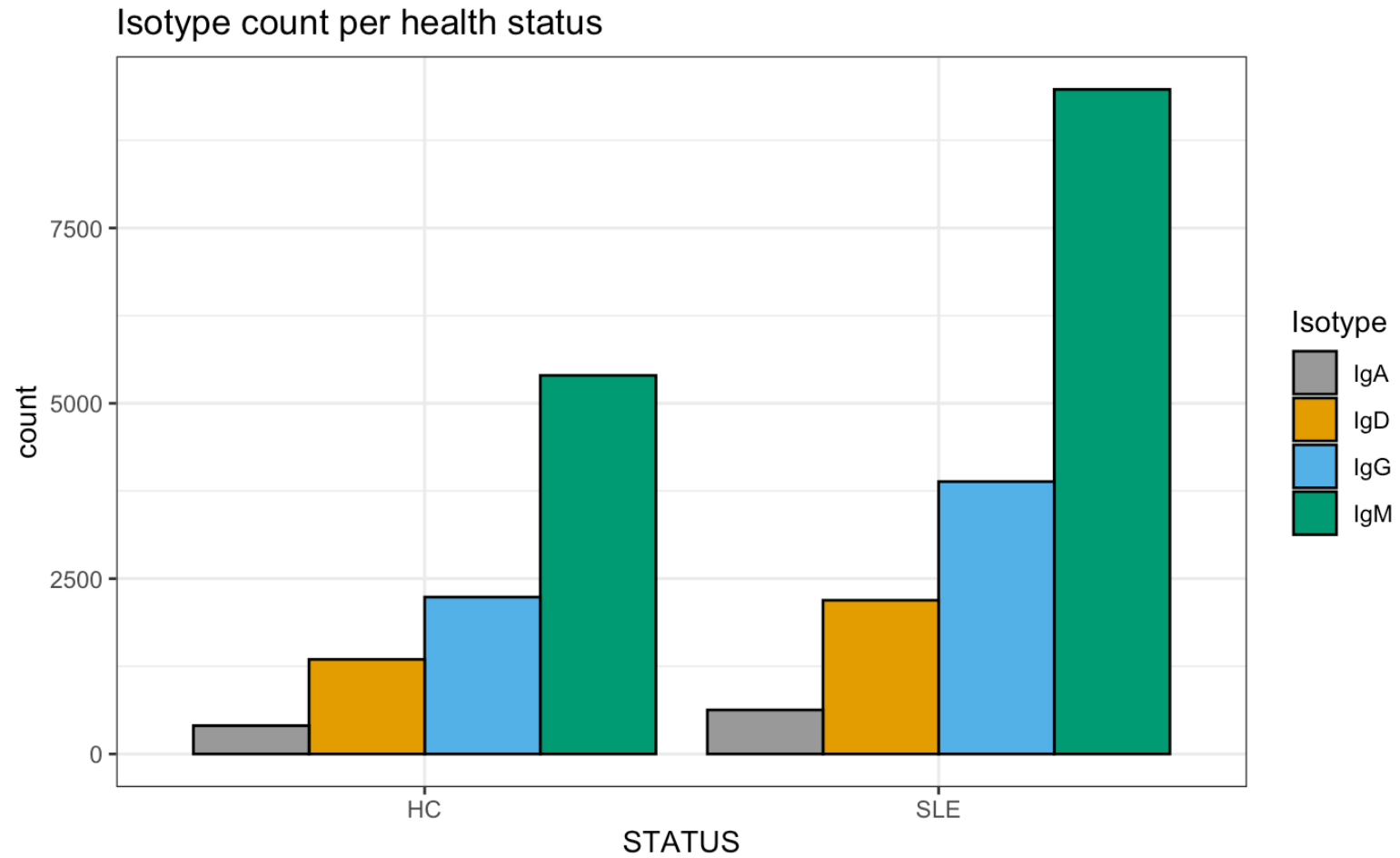
Christopher M Tipton¹, Christopher F Fucile², Jaime Darce³, Asiya Chida¹, Travis Ichikawa¹, Ivan Gregoret³, Sandra Schieferl³, Jennifer Hom¹, Scott Jenks¹, Ron J Feldman⁴, Ramit Mehr⁵, Chungwen Wei¹, F. Eun-Hyung Lee⁶, Wan Cheung Cheung⁷, Alexander F Rosenberga², and Iñaki Sanz¹

Immucantation Analysis

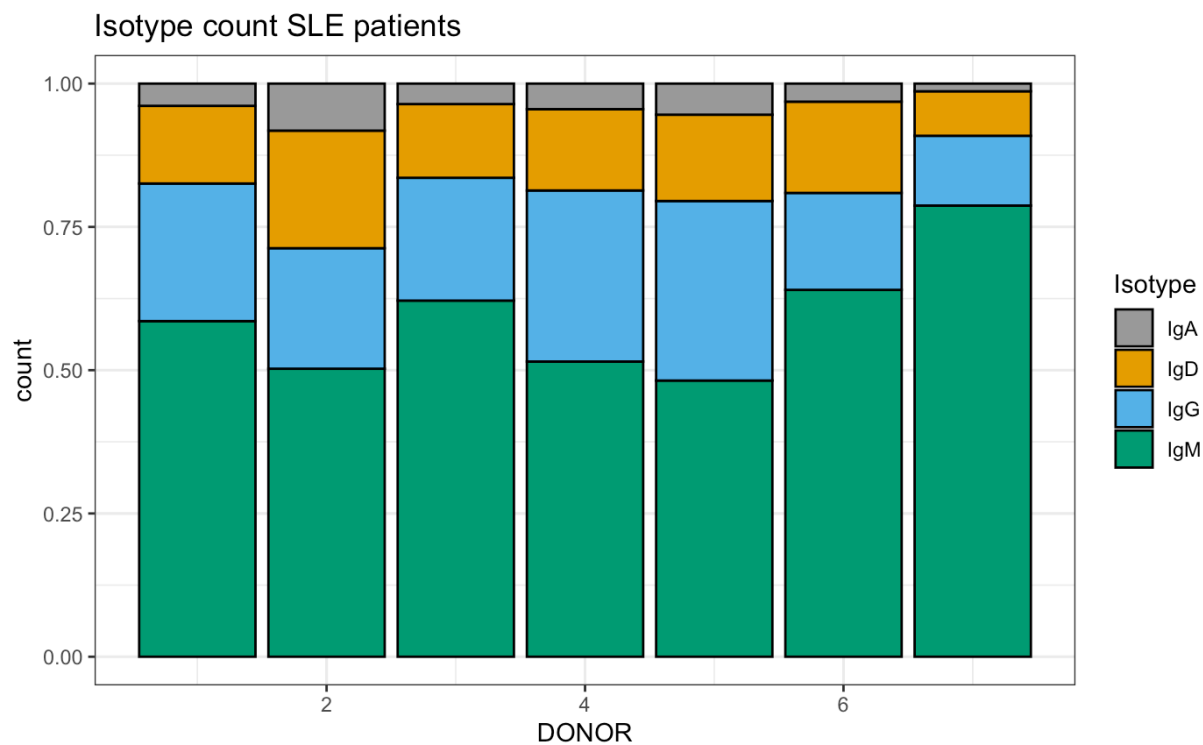
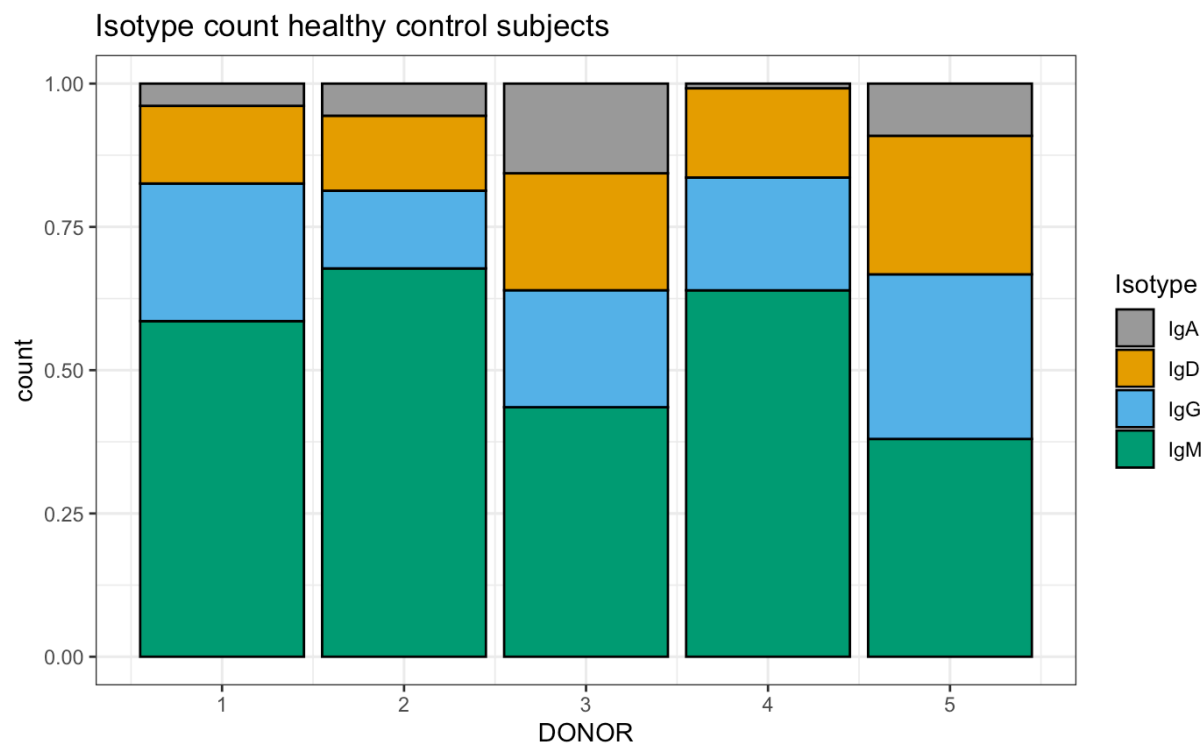
1. IMGIT High V Quest annotation
2. Connect to Immucantation Docker
3. Parse IMGIT output
4. Combine all dataset
5. Determine clonal threshold with Shazam
6. Assign clonal group with Change-O



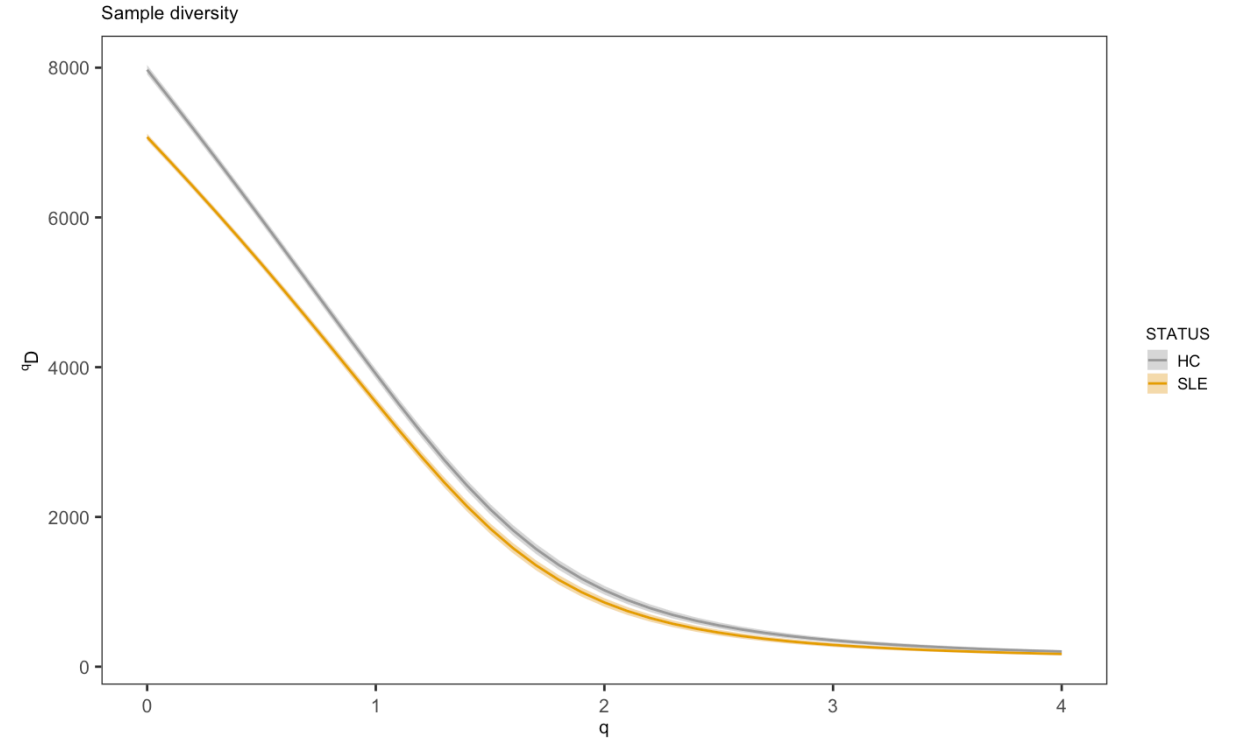
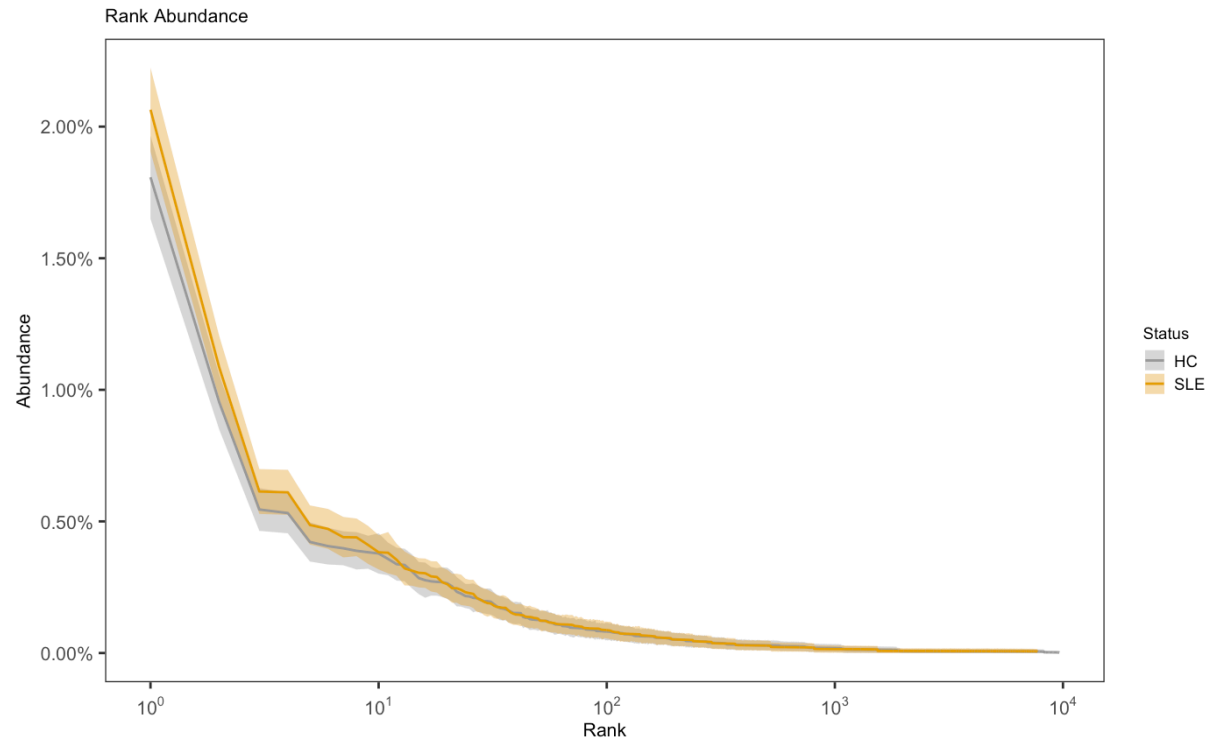
Isotype Analysis



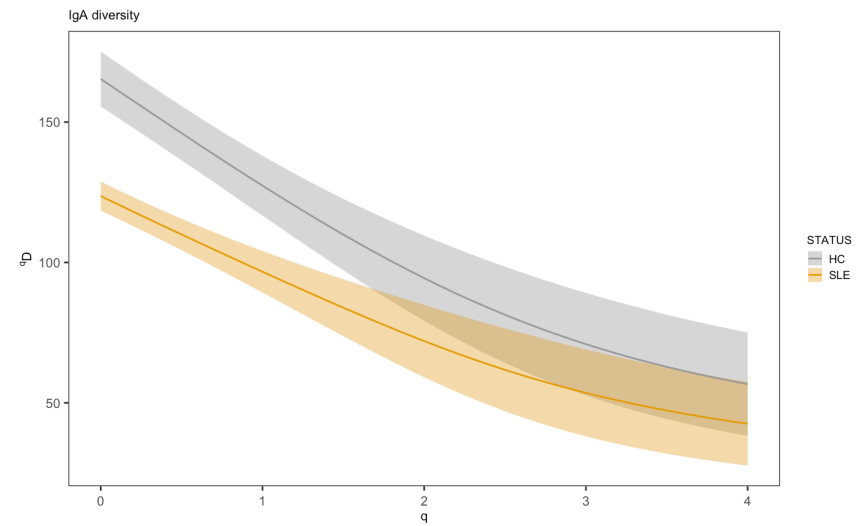
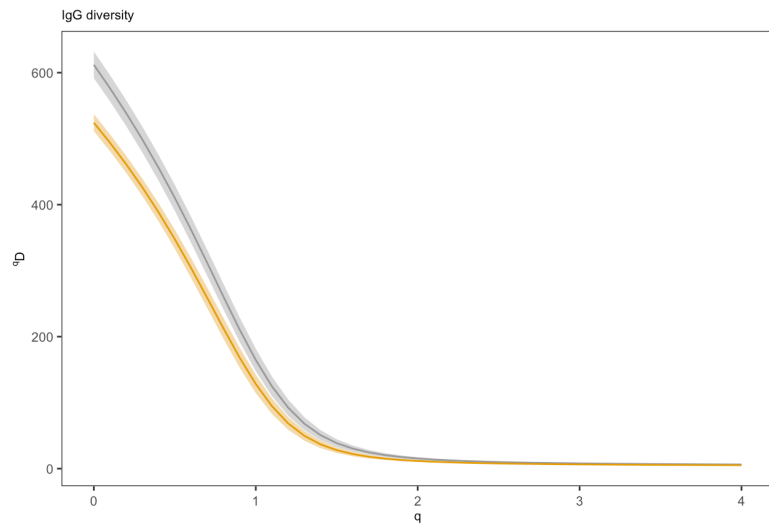
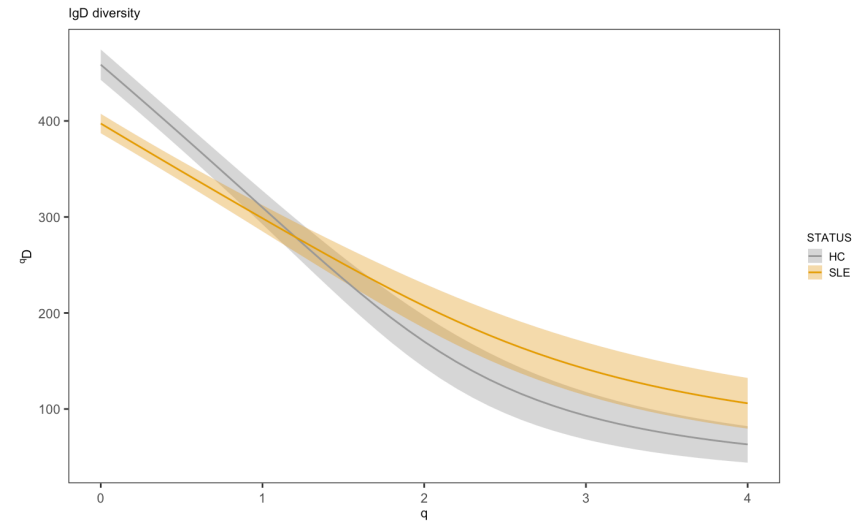
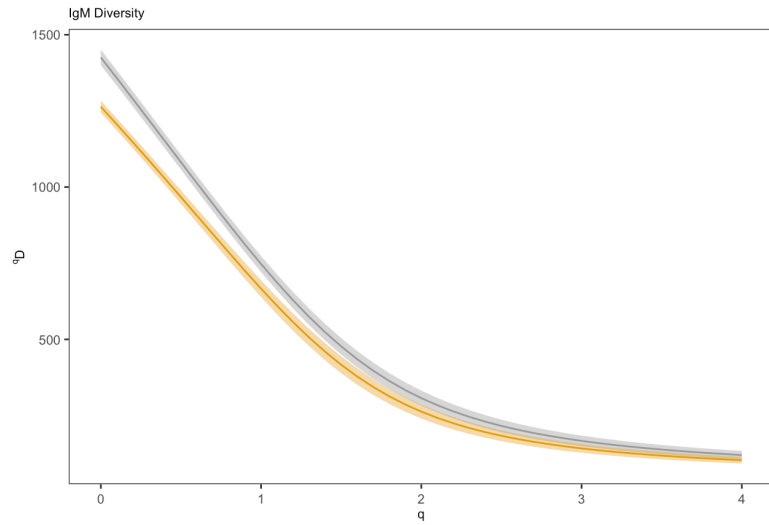
Isotype Analysis



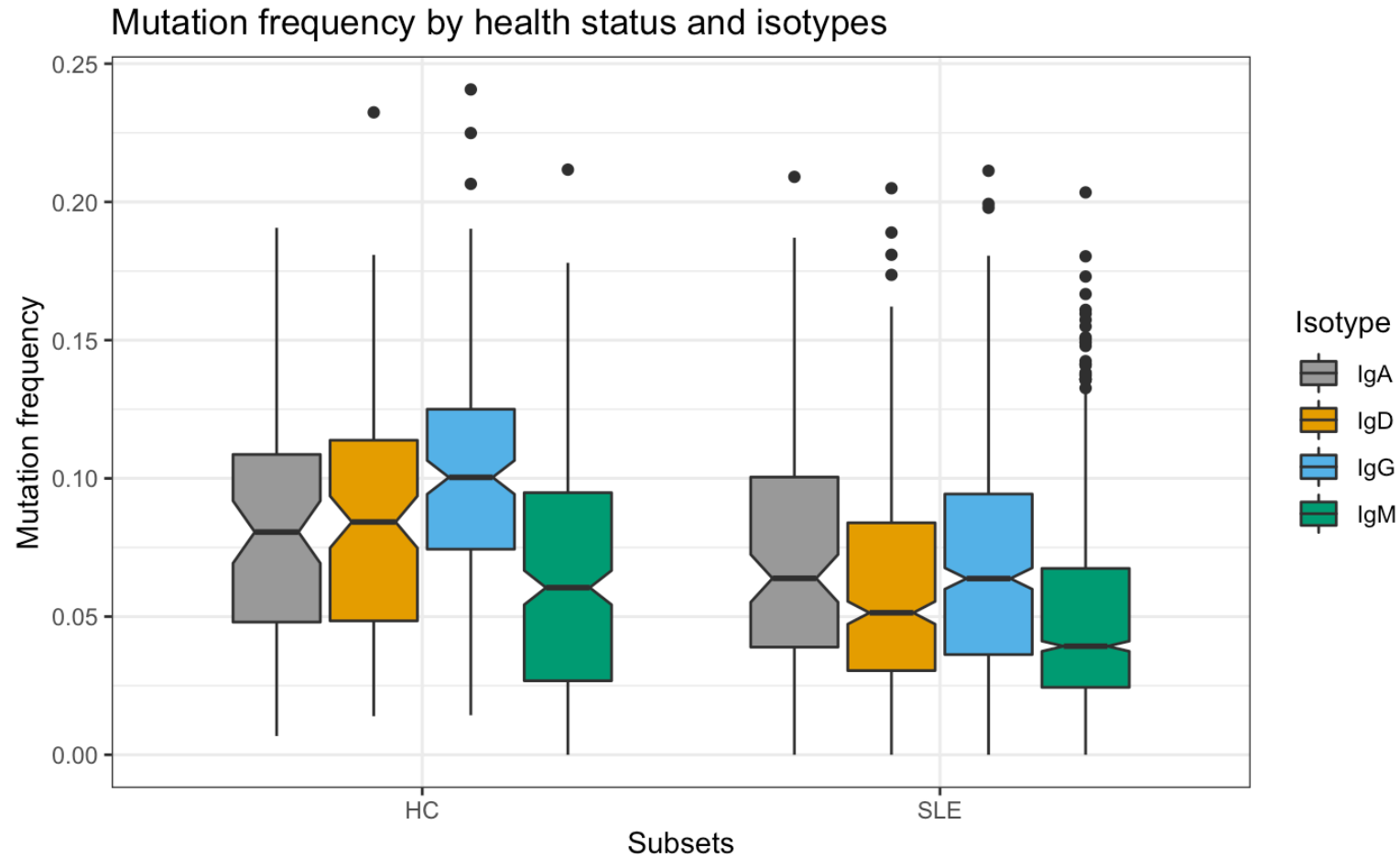
Clonal Diversity



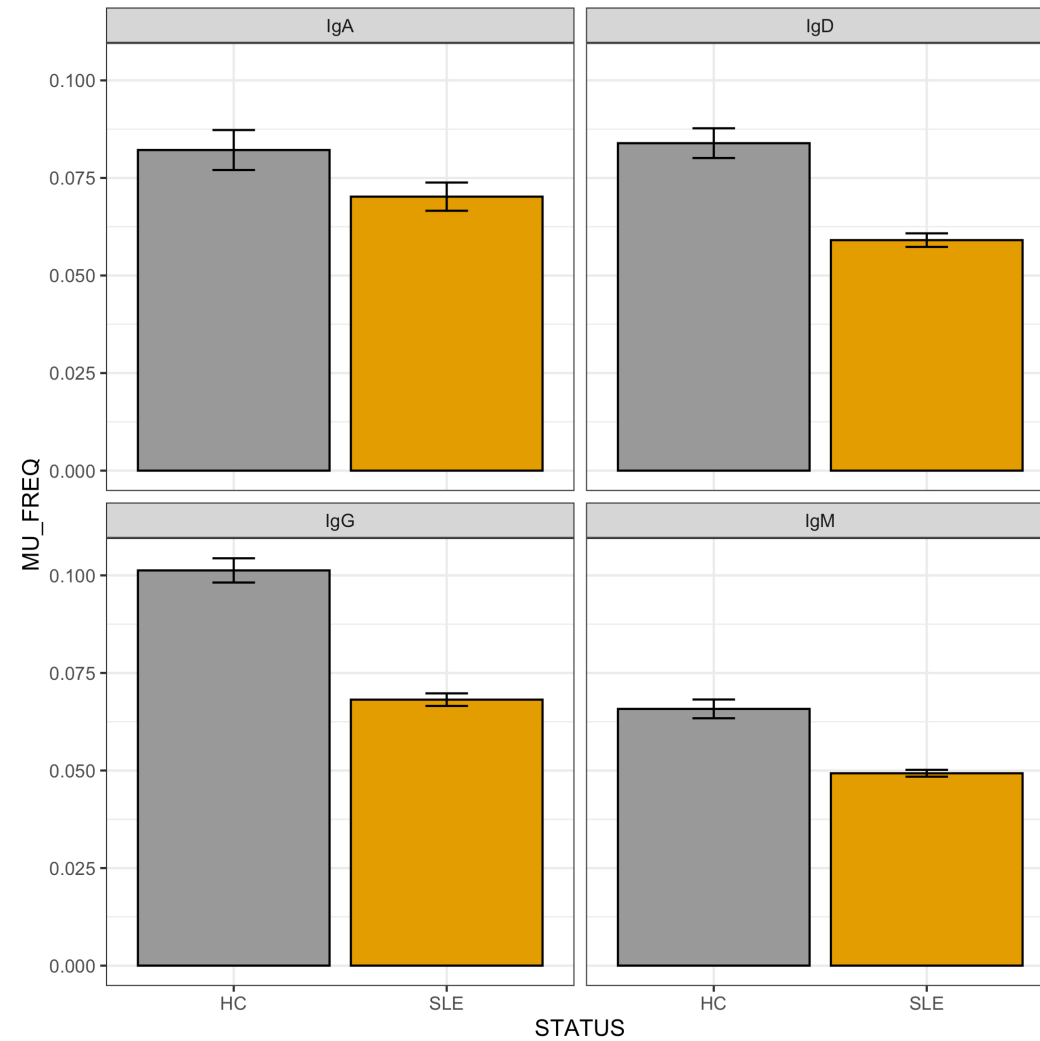
Clonal Diversity



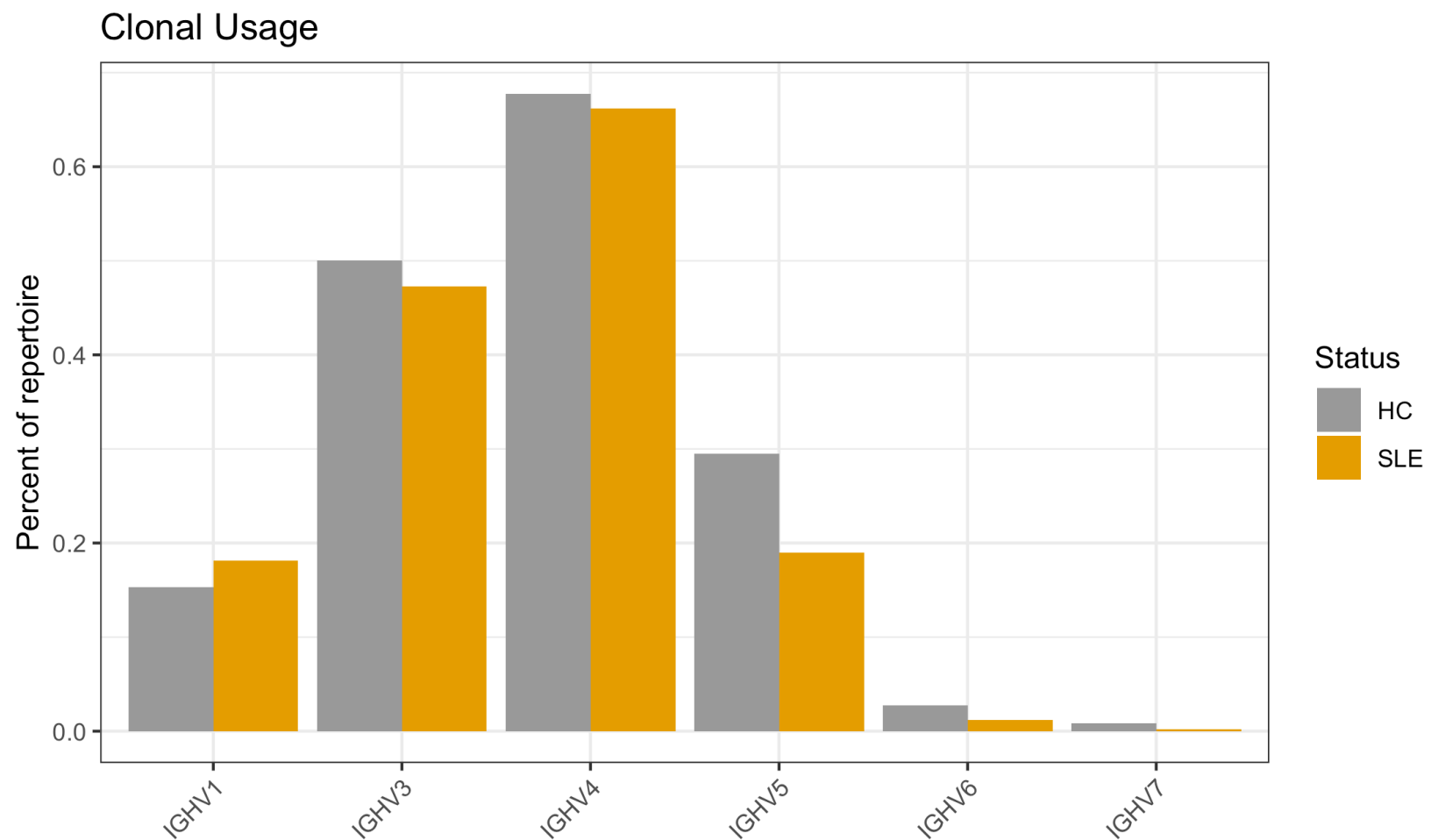
Mutation frequencies analysis



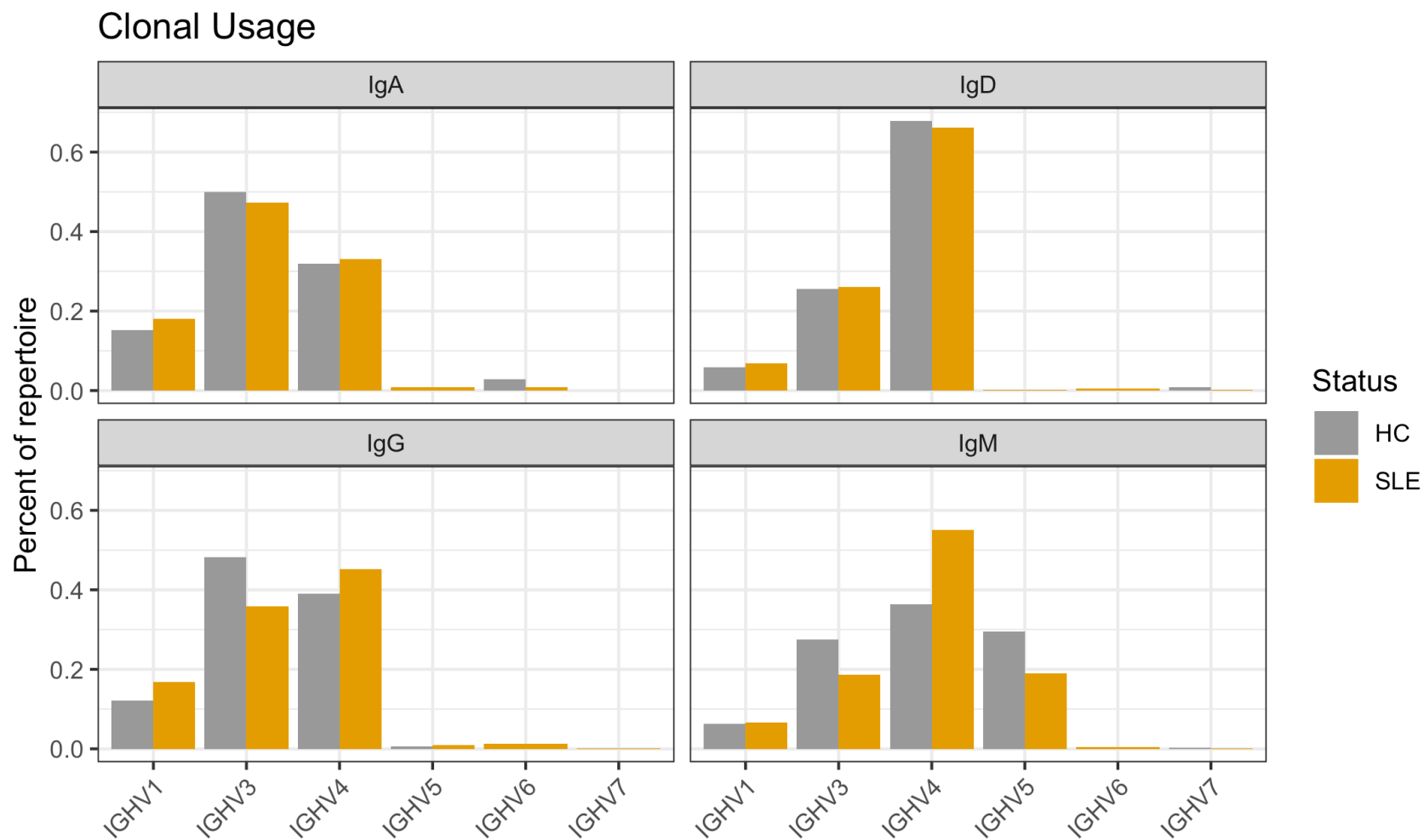
Mutation frequencies analysis



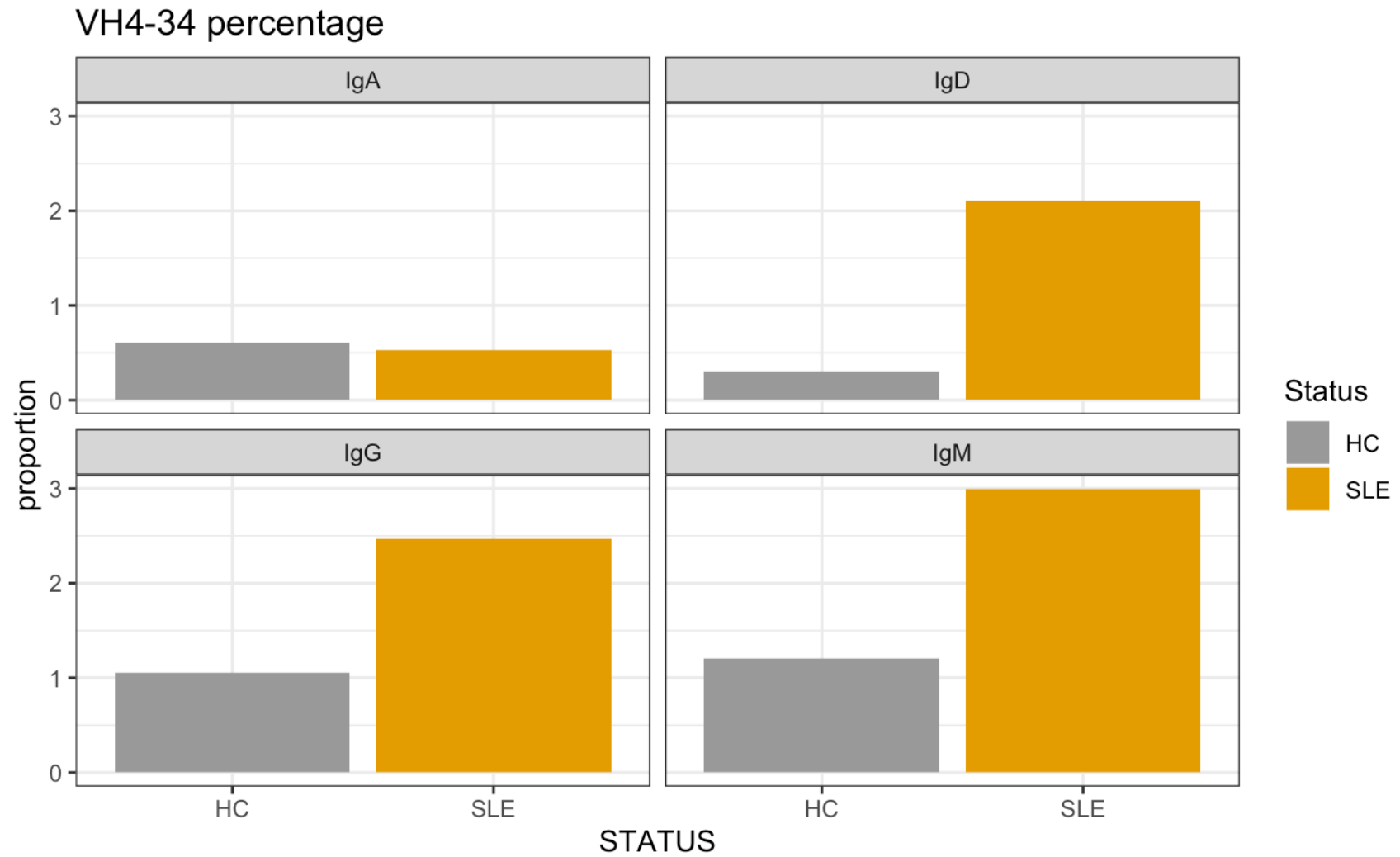
V-genes usage



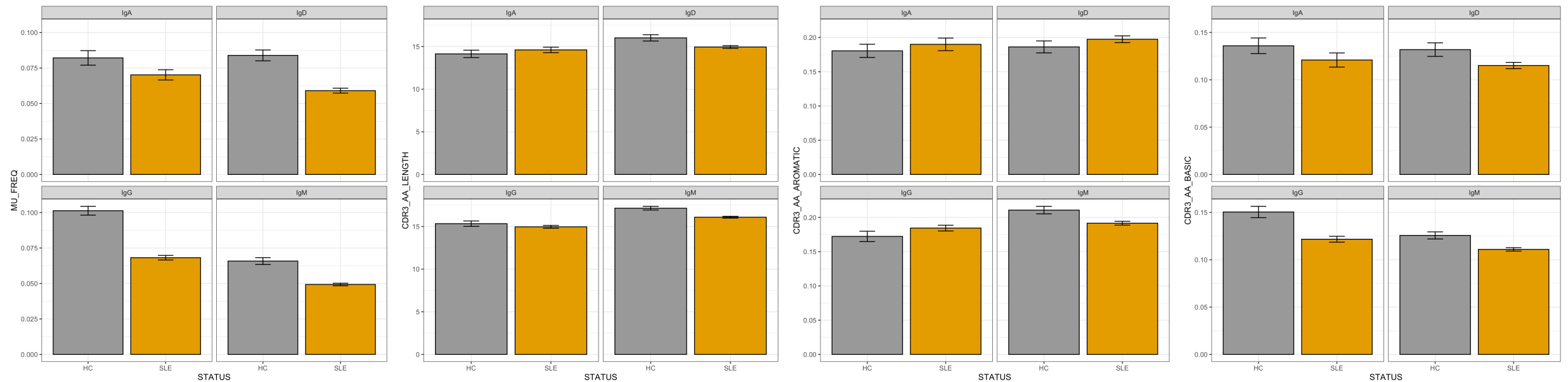
V-genes usage



VH4-34 gene usage



Physicochemical properties analysis



Physicochemical properties analysis

