

## \* Somatic hypermutation

→ point mutation in variable region  
gene segment

↓  
cellular specificity of antibodies

↓  
called hypermutation because  
frequency of mutation much  
higher (1,000,000) than  
spontaneous mutation of  
other gene.

- allow B cell to generate antibodies  
which can bind to pathogen in  
more precise manner

↓  
involves nucleotide substitution  
throughout VJ or VDJ segments