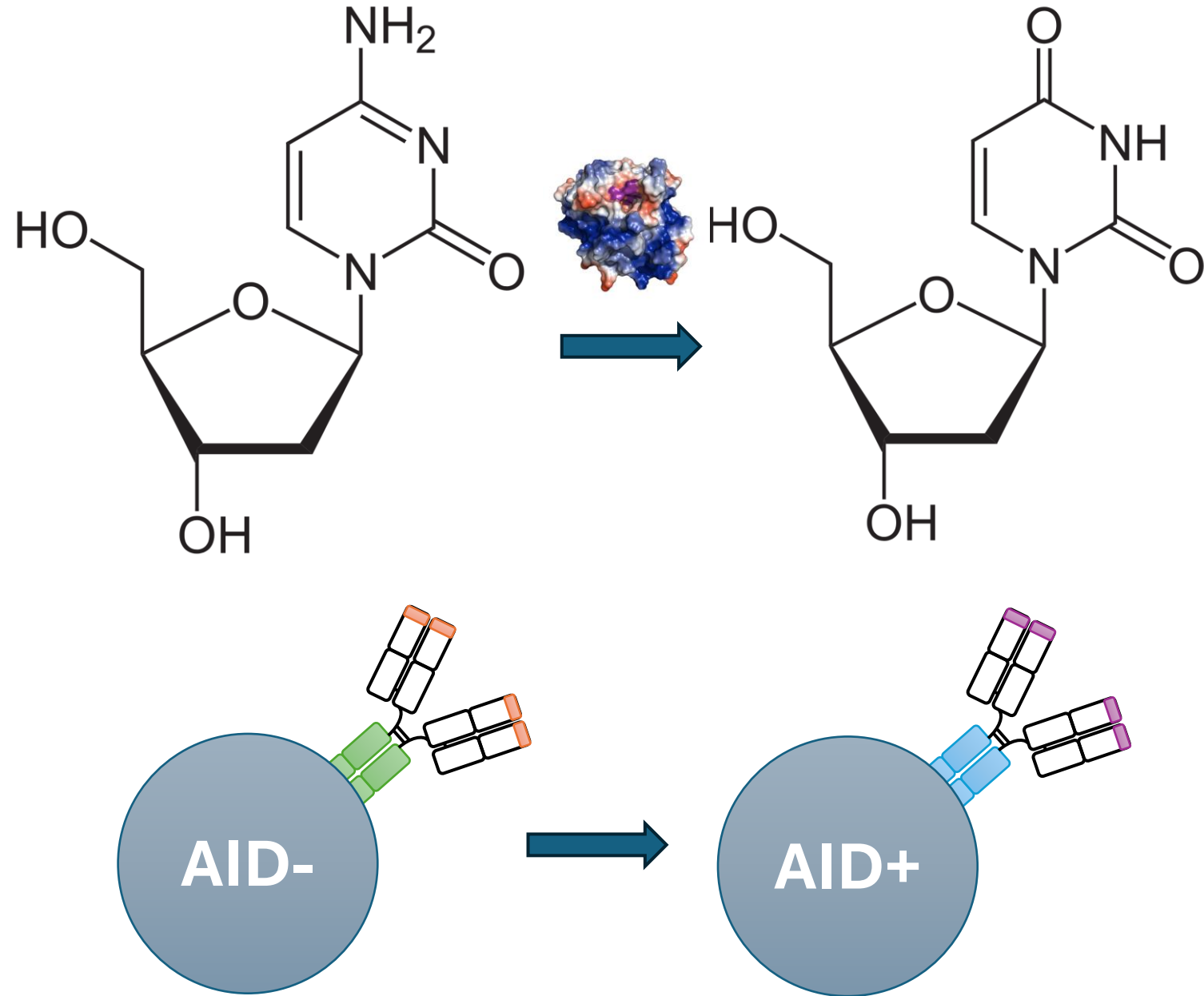


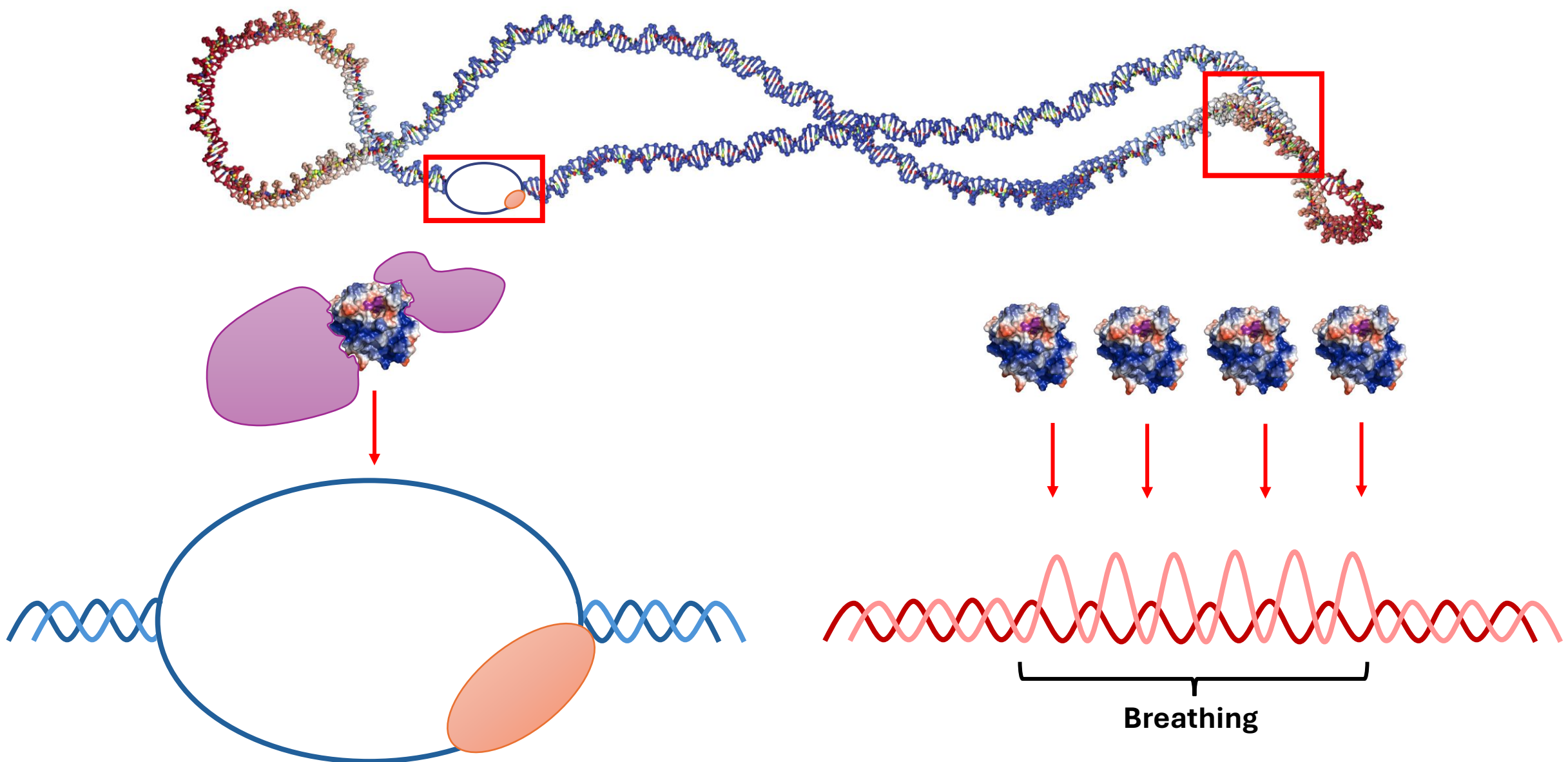
Contribution of DNA topology and primary sequence to aberrant AID-mediated deamination

Ivan Iavorskii
Larijani Lab

- AID is essential for maintaining the function of adaptive immunity
- AID's off-target activity is a primary cause of B-cell-derived lymphomas

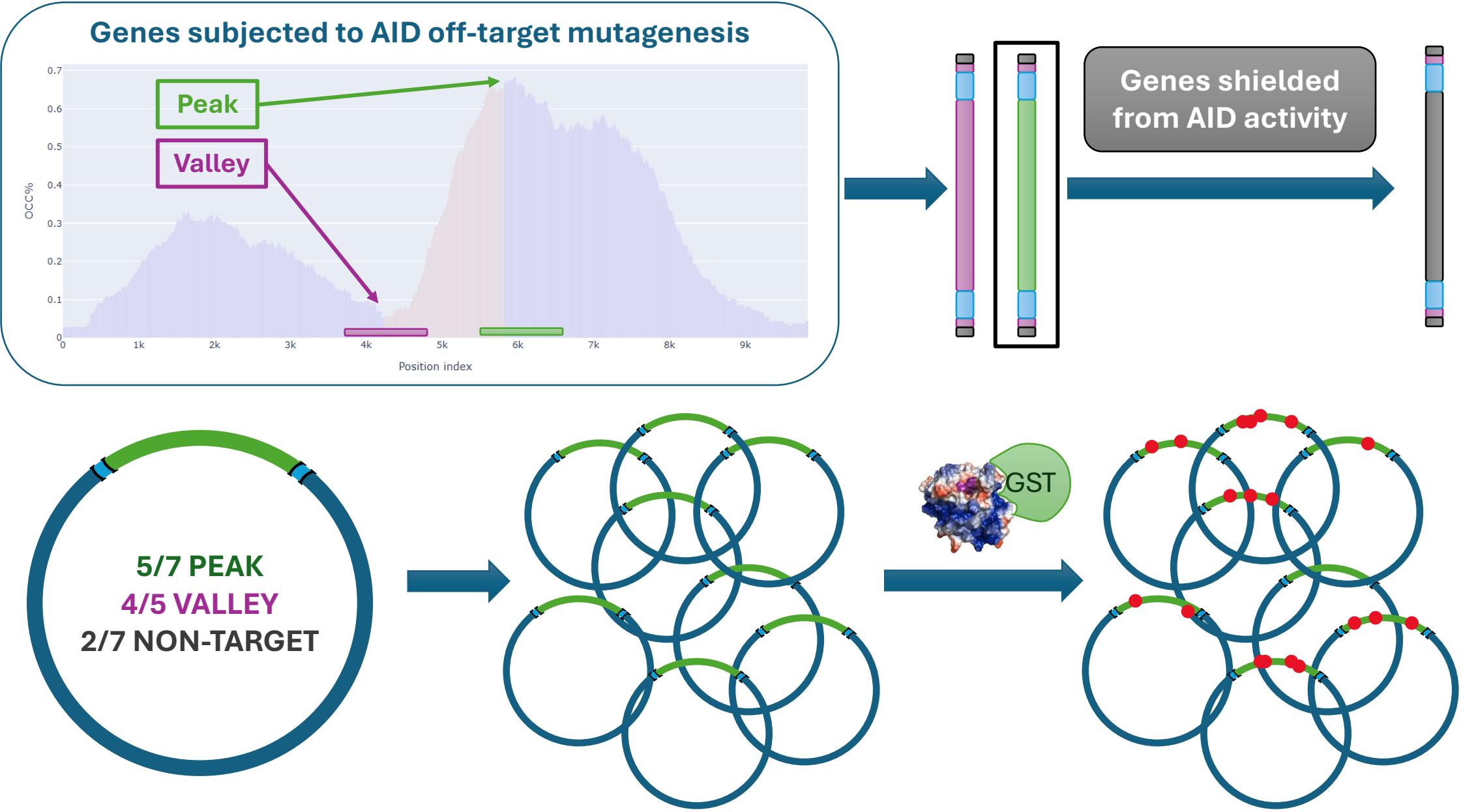


Driving force behind AID mutagenesis: Transcription vs Topology

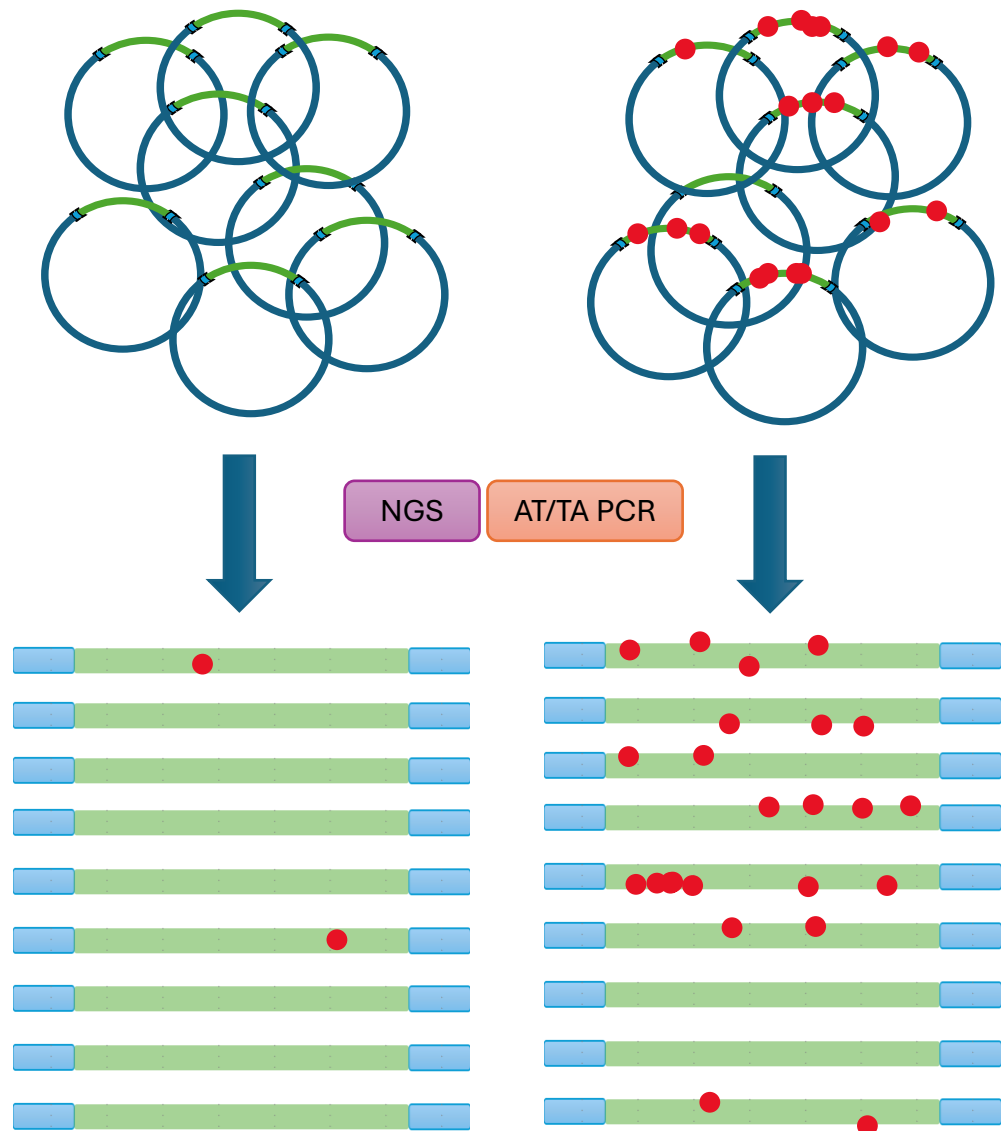
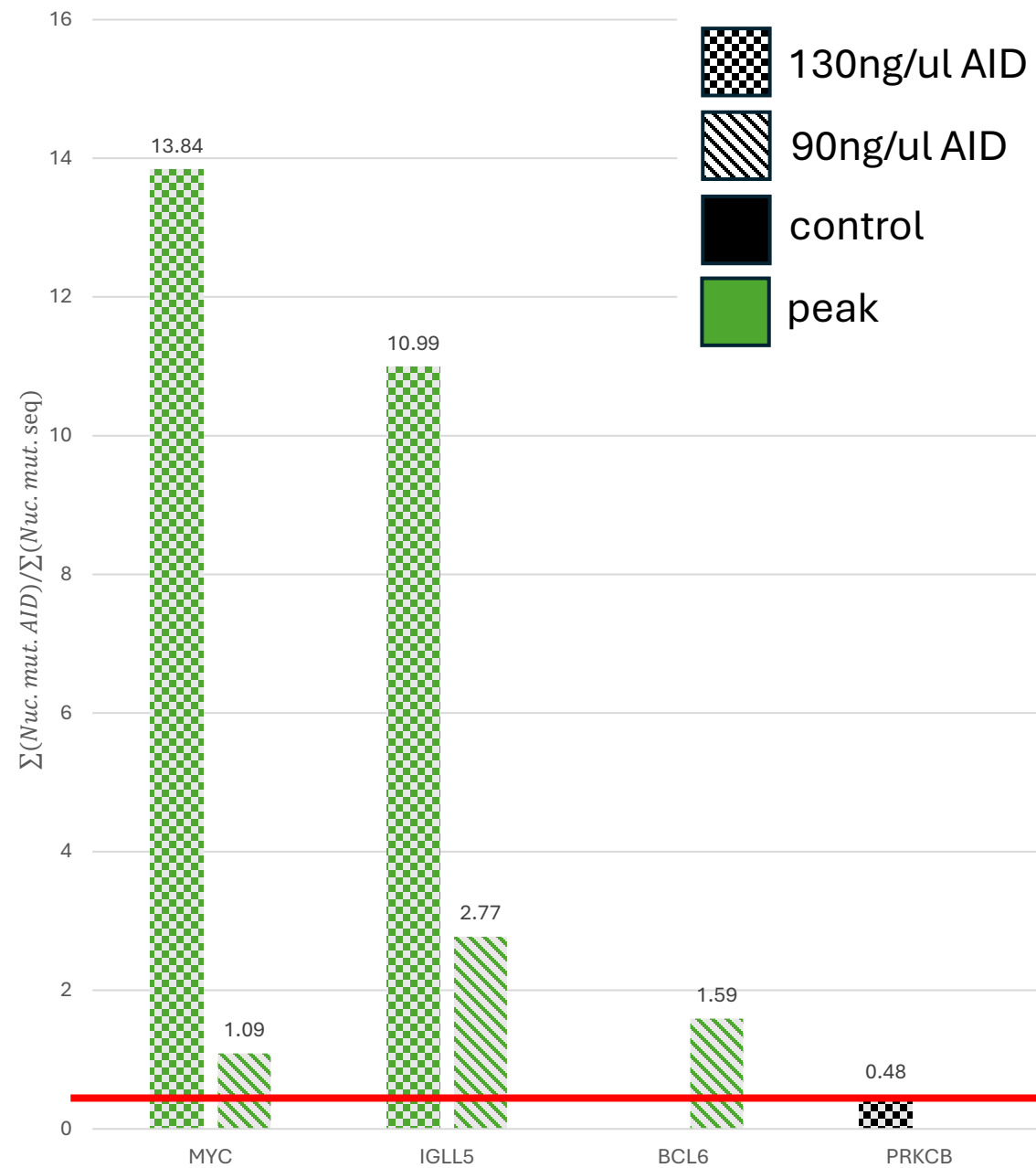


Shen, Storb. PNAS, 2004
Branton et al. FASEB J. 2020
Michelsoni et al. bioRxiv. 2025

Experimental design: Peaks, valleys, controls

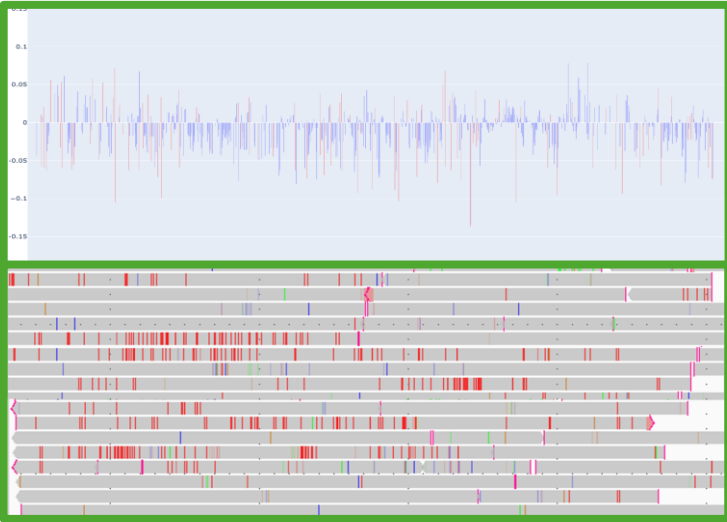


Preliminary data: Peaks show higher mutation frequency than control, independent of [AID]



Preliminary data: Peaks replicate natural AID mutational footprint

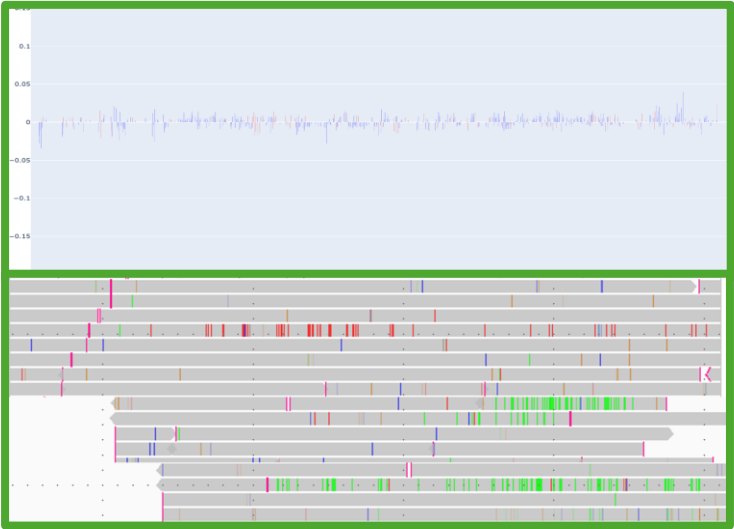
IGLL5 130NG/UL



MYC 130NG/UL



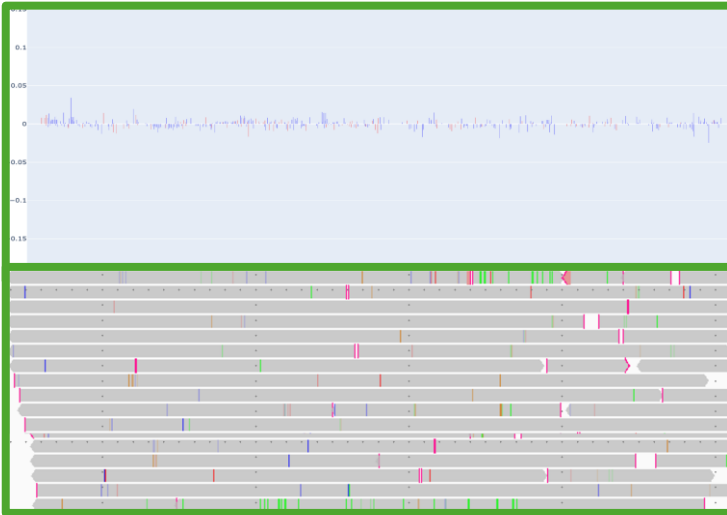
BCL6 90NG/UL



IGLL5 90NG/UL



MYC 90NG/UL



PRKCB 130NG/UL

