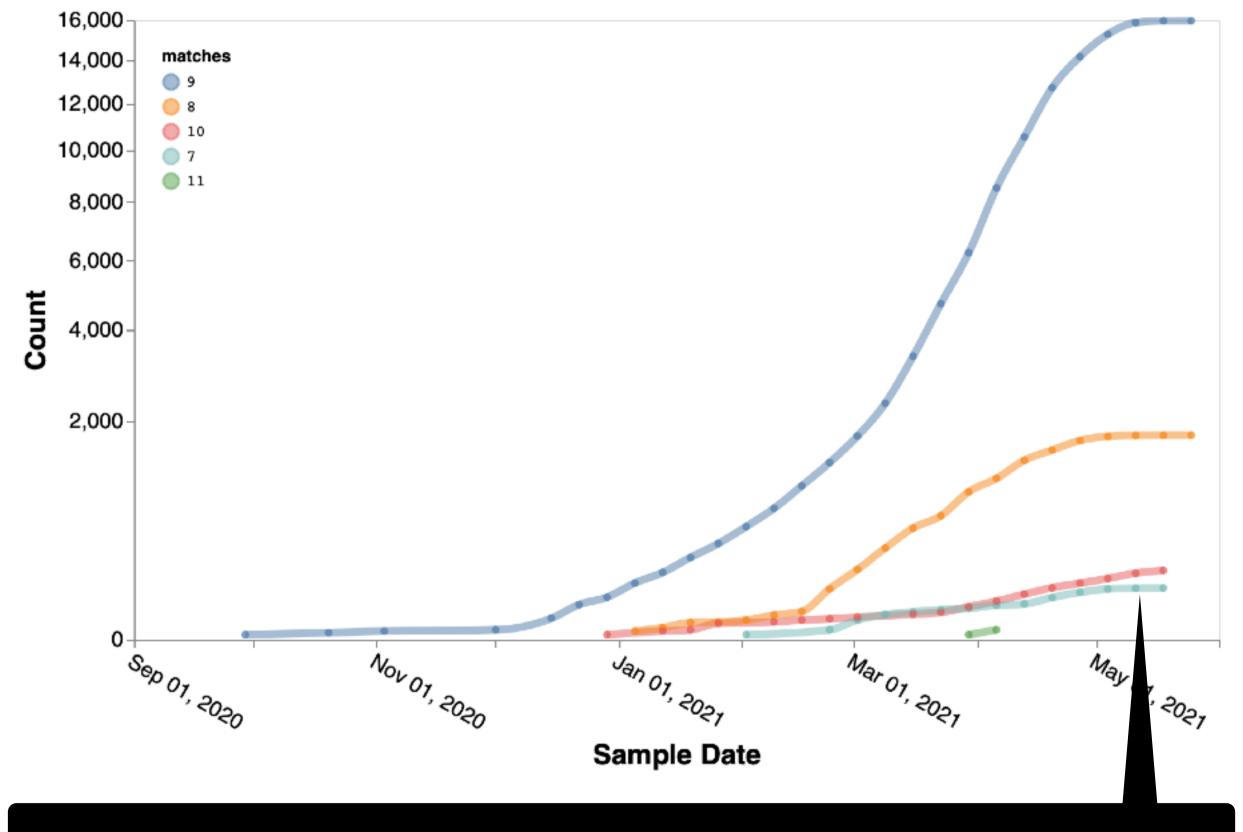


Decemb	er 2019	November 2020	May 2021	

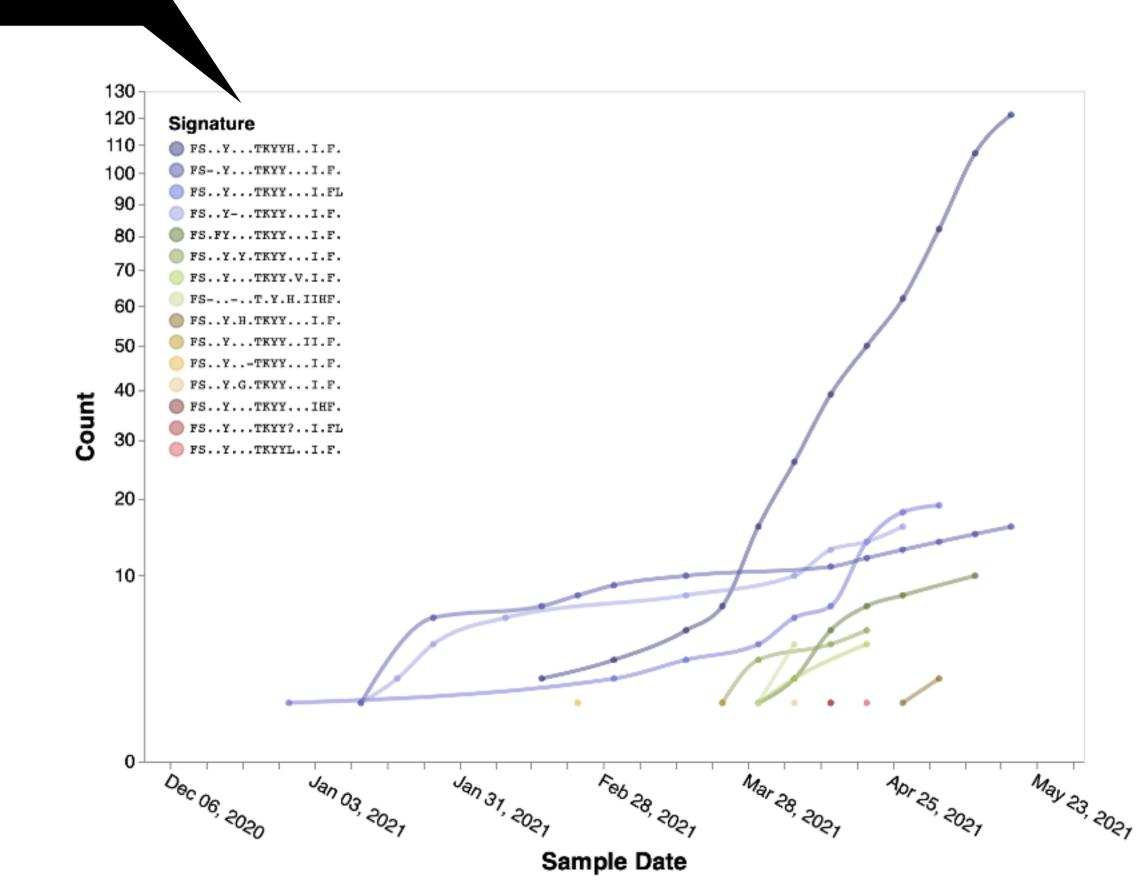


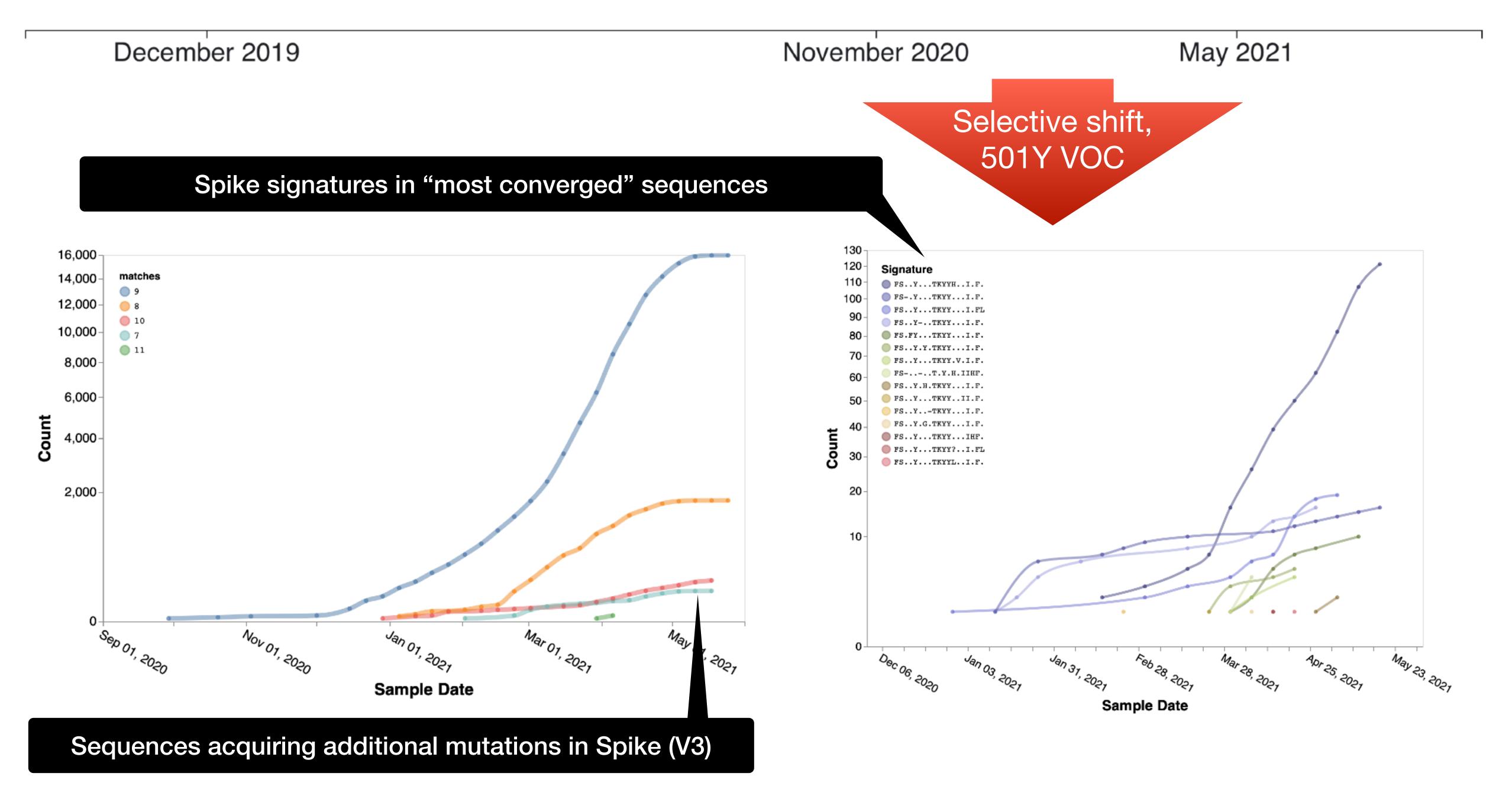
Martin et al., 2021, Cell 184, 5189–5200 The emergence and ongoing convergent evolution of the SARS-CoV-2 N501Y lineages



Sequences acquiring additional mutations in Spike (V3)

## Spike signatures in "most converged" sequences





December 2019

November 2020

May 2021

Delta takes over