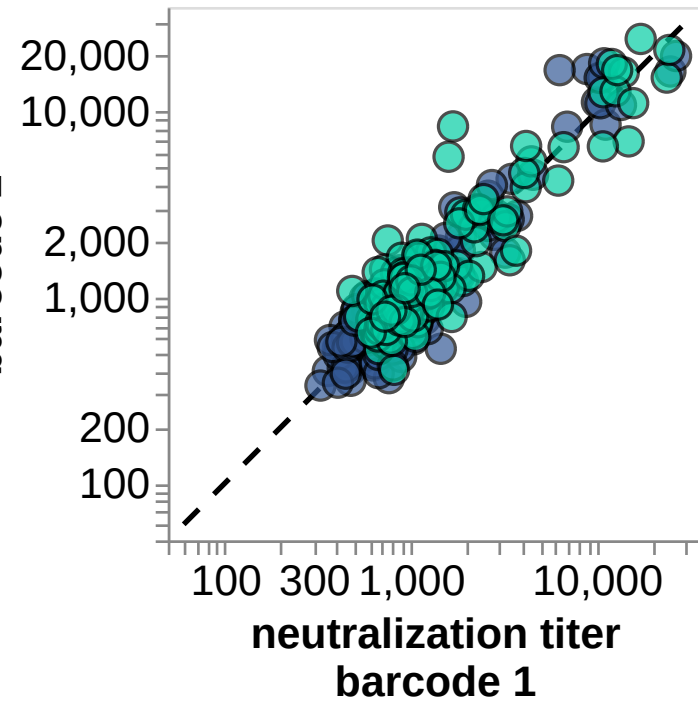
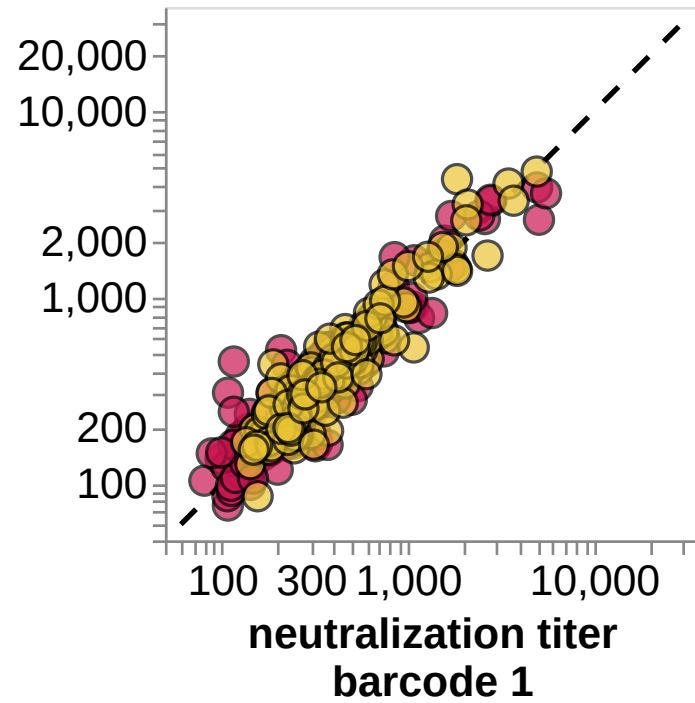


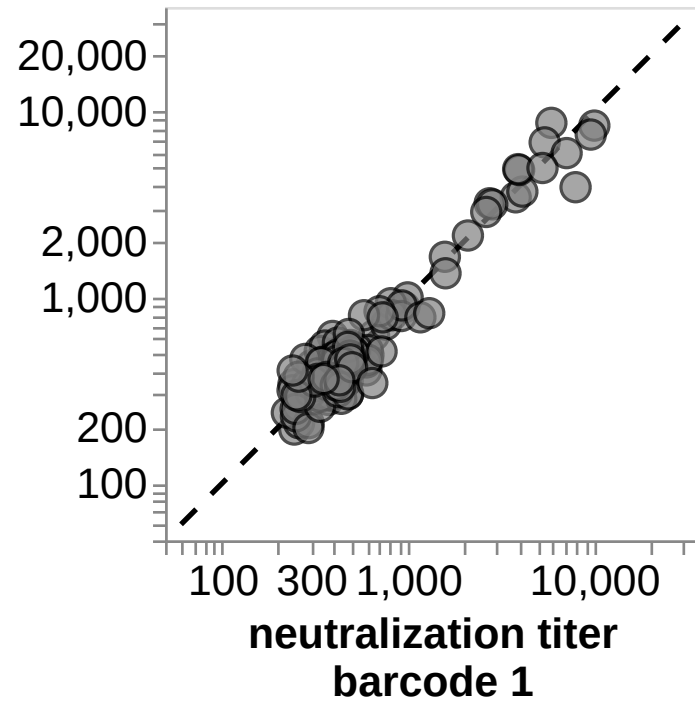
neutralization titer  
barcode 2



neutralization titer  
barcode 2



neutralization titer  
barcode 2



**serum**

- PENN23\_y1974\_s034\_d0,  $r^2=0.879$
- PENN23\_y1974\_s034\_d28,  $r^2=0.872$
- PENN23\_y1981\_s053\_d0,  $r^2=0.918$
- PENN23\_y1981\_s053\_d28,  $r^2=0.917$
- SCHPennPrePost\_pool,  $r^2=0.813$