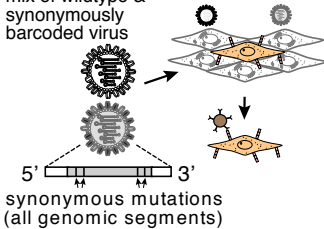
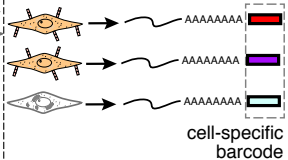


**(1) Infect A549 reporter cells and enrich for IFN+**

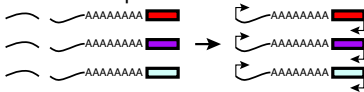
mix of wildtype & synonymously barcoded virus



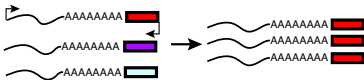
**(2) Generate barcoded cDNA with 10X Chromium**



**(3a) Fragmentation and Illumina 3'-end sequencing of entire transcriptome**



**(3b) Flu-specific PCR and full-length PacBio sequencing**



**(4) Analyze data to count all transcripts and determine full sequences of viruses for each cell**

Cell	IFNB1	Host gene A	M	NS	Infection state	Influenza genotype
A	0	15	0	0	N.D.	N.D.
B	10	20	80	0	Inf.	PB1-A1786C
C	12	21	99	94	Inf.	Wild-type
D	0	10	50	45	Coinf.	Wild-type / PA-Δ386-863